v.11

ANNUAL REPORT
OF
OCEANOGRAPHIC OBSERVATIONS

海 洋 調 査 年 報

VOLUME 11

1962

國 立 水 產 振 興 院
Fisheries Research and Development Agency
The Republic of Korea
Pusan, Korea

December, 1964

Digitized by the Internet Archive
in 2025

https://archive.org/details/annual-report-of-oceanographic-observations_1964-12_11

ANNUAL REPORT
OF
OCEANOGRAPHIC OBSERVATIONS

海 洋 調 査 年 報

VOLUME 11

1962

國 立 水 產 振 興 院

Fisheries Research and Development Agency
The Republic of Korea
Pusan, Korea
December, 1964

목 차

범 례 7

제 1 편 연안정지 해양관측성적 9

연안정지 해양관측점 위치도 12

연안정지 해양관측점 위치표 13

1. 연안정지 월별 표면수온 14

2. 연안정지 월별 표면수비중 18

제 2 편 횡단정선 해양관측성적 19

횡단정선 해양관측점 위치도 23

횡단정선 해양관측점 위치표 24

1. 동해 해양조사성적 25

2. 남해 해양조사성적 43

3. 서해 해양조사성적 77

4. 부유생물 조사성적 99

제 3 편 특별 해양관측성적 157

진해만 해양관측점 위치도 160

진해만 해양관측점 위치표 163

1. 진해만 해양관측성적 164

2. 진해만 부유생물 조사성적 187

CONTENTS

Explanations 7

Part 1. Coastal Oceanographic Observations..... 9

Location of the Shore Stations. 12

Position of the Shore Stations. 13

1. Surface Temperatures at the Shore Stations. 14

2. Surface Water Density at the Shore Stations. 18

Part 2. Sectional Oceanographic Observations..... 19

Oceanographic Station Pattern. 23

Position of the Serial Oceanographic Stations. 24

1. Oceanographic Observations, Eastern Waters. 25

2. Oceanographic Observations, Southern Waters. 43

3. Oceanographic Observations, Western Waters. 77

4. Plankton Data. 99

Part 3. Miscellaneous Oceanographic Observations. 157

Station Locations, Chinhae-Man. 160

Position of Oceanographic Stations, Chinhae-Man. 163

1. Oceanographic Data, Chinhae-Man. 164

2. Plankton Data, Chinhae-Man. 187

凡　例

時　　刻：大韓民國 標準時(東經 135 度)임.

水　　溫：攝氏度數(°C)이며 示度는 百分之壹임.

鹽　　分：千分率(‰)로 表示됨.

水　　深：*m*法으로 表示됨.

透 明 度：透明度板에 依한 測定値로써 *m* 法으로 表示됨.

水　　色：Forel 水色標準液의 水色番號(1～11) 임.

波　　浪：10 階級法(0～9)에 依함.

音　　니：4 階級法(0～3)에 依함. 波高는 0=0 *m*, 1=2 *m* 未滿, 2=2～4 *m*, 3=4 *m* 以上

氣　　溫：攝氏度數(°C)이며 示度는 拾分之壹임.

氣　　壓：Ancroid 氣壓計에 依한 觀測値이며 *mm*로 表示됨.

風　　：風向은 16方位法(磁針方位)에 依함.

風力은 Beaufort 風力階級에 依함.

雲　　：雲形은 十種雲形法에 依함.

雲量은 天空의 十等分法에 依함.

天　　氣：快晴(B)=雲量 0 ～ 2, 晴(BC)=雲量 3 ～ 7, 曇(C)=雲量 8 ～ 10, 雨(R), 霧(F), 雪(S) 等으로 區分됨.

浮游生物："+" 標는 浮游生物이 存在한다는 表示임.

EXPLANATIONS

Time : Korean Standard Time used the mean solar time referred to the meridian of 135° E.

Water Temperature: Recorded in hundredths of a degree in Centigrade.

Salinity : Expressed in parts per thousandth, determined by the Knudsen method.

Depth : Expressed in meters determined by the wire length and its angle.

Transparency : Expressed in meters determined by the Secchi disk.

Color of the sea : Recorded in numbers of Forel Scale.

Wind Wave : Expressed in the scale (0~9).

Swell : Expressed in the scale (0~3). The scale and the wave height are as follows: 0=0 m, 1=less than 2 m, 2=2~4 m, 3=greater than 4 m.

Air Temperature : Recorded in tenths of a degree in Centigrade.

Air Pressure : Recorded in mm obtained from the direct reading of Aneroid Barometers.

Wind Direction : Given in 16 point scale of the compass bearing.

Velocity : Given in Beaufort Scale.

Cloud Type : Recorded in ten types of cloud.

Cover : Expressed in tenths of the whole sky covered.

Weather : Recorded in present weather. The weather and the cloud cover are as follows: B=0~2, BC=3~7, C=8~10.

Plankton : "+" indicates the existence of plankton organisms.

제 1 편

연안정지 해양관측성적

PART 1

COASTAL OCEANOGRAPHIC OBSERVATIONS

1962

목 차

연안정지 해양관측점 위치도 12

연안정지 해양관측점 위치표 13

1. 연안정지 월별 표면수온 14

2. 연안정지 월별 표면수비중 18

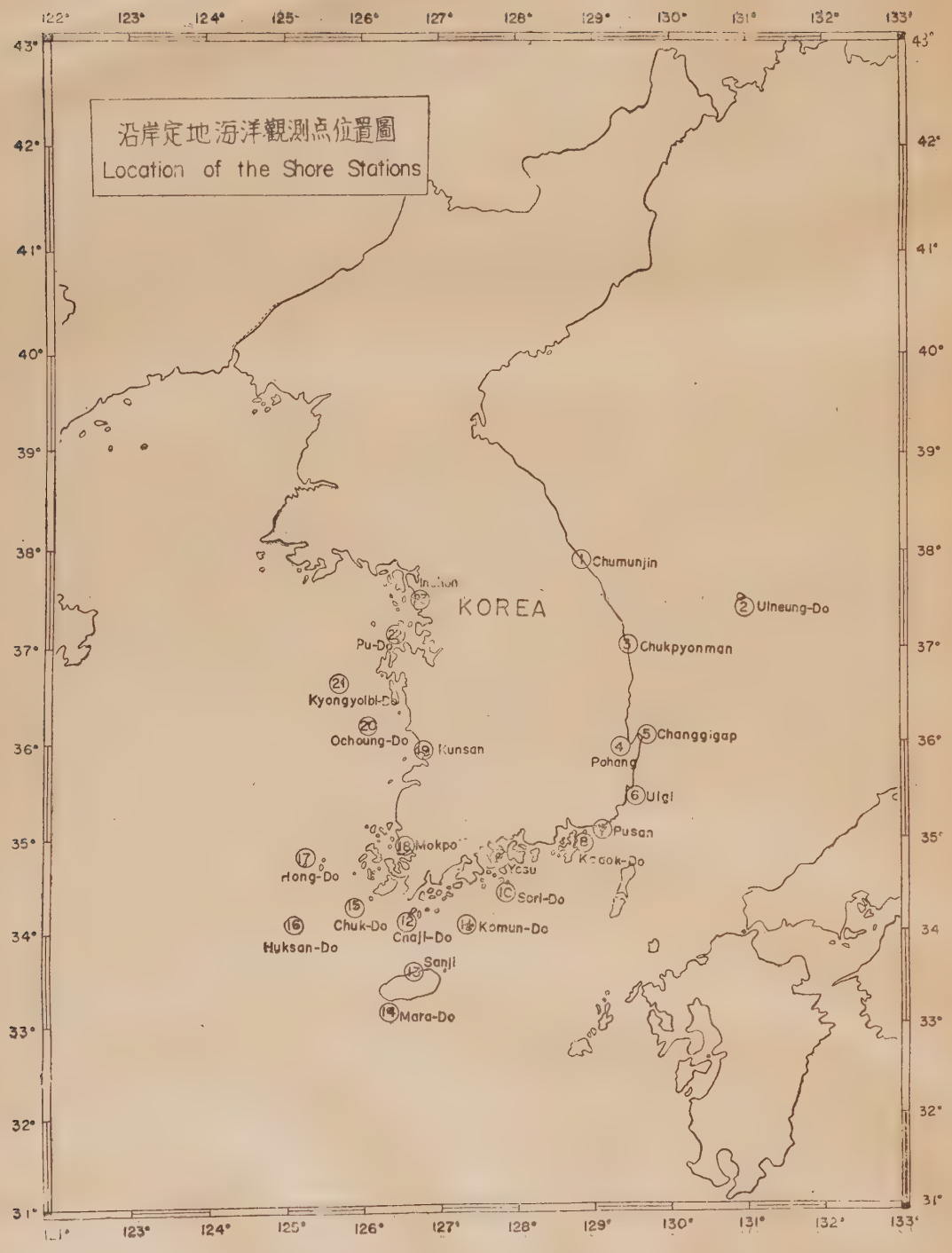
CONTENTS

Location of the Shore Stations. 12

Position of the Shore Stations. 13

1. Surface Temperatures at the Shore Stations. 14

2. Surface Water Density at the Shore Stations. 18


沿岸定地海洋觀測点位置圖
Location of the Shore Stations
KOREA
1 Chumunjin
2 Ulneung-Do
3 Chukpyonman
4 Pohang
5 Changgigap
6 Ulgi
7 Pusan
8 Kadok-Do
9 Kunsan
10 Sori-Do
11 Komun-Do
12 Chaji-Do
13 Sanji
14 Mara-Do
15 Chuk-Do
16 Huksan-Do
17 Hong-Do
18 Mokpo
19 Pu-Do
20 Ochoung-Do
21 Kyongyolbi-Do
Tsushima
122° 123° 124° 125° 126° 127° 128° 129° 130° 131° 132° 133°
43° 42° 41° 40° 39° 38° 37° 36° 35° 34° 33° 32° 31°

연안정지 해양관측점 위치표
Position of the Shore Stations.

해역 Region	번호 No.	관측지명 Name of Station	위치 Location 북위 Lat. (N)	동경 Long. (E)	관측회수 Frequency of Observations	관측개시년 Date of Inauguration
동해안 East Coast	①	주문진 Chumunjin	37°—53′	128°—50′	매일 Daily*	1952. 8
	②	울릉도 Ulneung-Do	37°—29′	130°—55′	매일 Daily*	1931. 11
	③	축변만 Chukbyonman	37°—03′	129°—26′	매일 Daily*	1916. 7
	④	포항 Pohang	36°—03′	129°—26′	매일 Daily*	1946. 7
	⑤	장기갑 Changgigap	36°—05′	129°—35′	매일 Daily*	1916. 7
	⑥	울기 Ulgi	35°—29′	129°—27′	매일 Daily*	1939. 1
남해안 South Coast	⑦	부산 Pusan	35°—05′	129°—02′	매일 Daily*	1925. 3
	⑧	가덕도 Kadok-Do	34°—59′	128°—50′	매일 Daily*	1930. 1
	⑨	여수 Yosu	34°—44′	128°—44′	매일 Daily*	1921. 1
	⑩	소리도 Sori-Do	34°—24′	127°—48′	매일 Daily*	1928. 4
	⑪	거문도 Komun-Do	34°—01′	127°—19′	매일 Daily*	1916. 7
	⑫	자지도 Chaji-Do	34°—05′	126°—36′	매일 Daily*	1928. 4
	⑬	산지 Sanji	33°—31′	126°—33′	매일 Daily*	1923. 10
	⑭	마라도 Mara-Do	33°—07′	126°—16′	매일 Daily*	1923. 10
서해안 West Coast	⑮	죽도 Chuk-Do	34°—14′	125°—51′	매일 Daily*	1916. 7
	⑯	흑산도 Huksan-Do	34°—06′	125°—06′	매일 Daily*	1925. 10
	⑰	홍도 Hong-Do	34°—43′	125°—13′	매일 Daily*	1933. 1
	⑱	목포 Mokpo	34°—47′	126°—23′	매일 Daily*	1928. 8
	⑲	군산 Kunsan	35°—59′	126°—43′	매일 Daily*	1939. 4
	⑳	어청도 Ochong-Do	36°—07′	125°—59′	매일 Daily*	1916. 7
	㉑	격렬비도Kyognyolbi-Do	36°—37′	125°—33′	매일 Daily*	1916. 7
	㉒	부도 Pu-Do	37°—09′	126°—21′	매일 Daily*	1926. 1
	㉓	인천 Inchon	37°—28′	126°—36′	매일 Daily*	1938. 1

* 매일 오전 10시 관측
At 10 a. m. everywhere.

1. 연 안 정 지 월

Surface Temperatures

월 Month	관측지명 Station / 순 Ten day	① 주문진 Chumunjin	② 울능도 Ulneung Do	③ 축 변 Chuk-byon	④ 포 항 Pohang	⑤ 장기갑 Chang-gigap	⑥ 울 기 Ulgi	⑦ 부 산 Pusan	⑧ 가덕도 Kadok-Do	⑨ 여 수 Yosu
1월 Jan.	상 순 1st	10. 60	10. 02	—	10. 13	9. 33	14. 16	13. 18	11. 55	7. 84
	중 순 2nd	9. 61	8. 69	—	10. 30	—	11. 46	11. 71	11. 47	6. 89
	하 순 3rd	8. 57	8. 15	—	8. 56	—	11. 31	10. 66	11. 40	6. 21
	월평균 Mean	**9. 59**	**8. 95**	—	**9. 66**	—	**12. 24**	**11. 79**	**11. 47**	**6. 98**
2월 Feb.	상 순 1st	8. 95	10. 09	—	8. 68	9. 14	11. 02	11. 48	11. 45	5. 97
	중 순 2nd	7. 38	10. 48	—	8. 51	8. 84	10. 12	10. 38	11. 20	6. 32
	하 순 3rd	7. 20	9. 44	—	7. 87	9. 72	11. 30	10. 39	10. 40	6. 52
	월평균 Mean	**7. 84**	**10. 01**	—	**8. 35**	**9. 23**	**10. 78**	**10. 75**	**11. 02**	**5. 94**
3월 Mar.	상 순 1st	7. 14	10. 98	—	8. 86	9. 57	10. 53	11. 21	10. 33	7. 52
	중 순 2nd	7. 12	10. 59	—	9. 68	9. 86	11. 00	12. 10	11. 01	7. 27
	하 순 3rd	6. 69	11. 24	—	9. 26	9. 12	10. 70	11. 58	10. 43	9. 62
	월평균 Mean	**6. 98**	**10. 94**	—	**9. 27**	**9. 52**	**10. 74**	**11. 63**	**10. 59**	**8. 80**
4월 Apr.	상 순 1st	7. 10	11. 73	—	10. 33	10. 35	11. 21	11. 83	11. 20	9. 89
	중 순 2nd	8. 14	11. 07	—	11. 49	11. 64	12. 13	12. 99	13. 33	11. 07
	하 순 3rd	9. 48	11. 93	—	12. 75	12. 85	12. 03	13. 69	14. 17	13. 17
	월평균 Mean	**8. 24**	**11. 58**	—	**11. 52**	**12. 03**	**11. 46**	**12. 84**	**12. 57**	**11. 06**
5월 May	상 순 1st	10. 96	12. 95	—	14. 30	13. 88	13. 30	14. 69	15. 20	—
	중 순 2nd	12. 22	13. 04	—	13. 73	14. 90	14. 05	15. 10	15. 28	—
	하 순 3rd	14. 09	14. 22	—	16. 29	17. 08	14. 98	15. 92	18. 52	—
	월평균 Mean	**12. 42**	**13. 40**	—	**14. 77**	**15. 29**	**14. 11**	**15. 24**	**16. 33**	—
6월 Jun.	상 순 1st	—	14. 95	—	17. 06	17. 30	13. 92	16. 40	16. 98	—
	중 순 2nd	—	15. 60	—	17. 56	18. 69	14. 38	17. 82	17. 11	—
	하 순 3rd	—	15. 28	—	19. 72	19. 06	14. 48	18. 83	17. 58	—
	월평균 Mean	—	**15. 28**	—	**18. 11**	**18. 02**	**14. 26**	**17. 68**	**17. 22**	—

별 표 면 수 온

at the Shore Stations.

⑩ 소리도 Sori-Do	⑪ 거문도 Komun-Do	⑫ 자지도 Chaji-Do	⑬ 산 지 Sanji	⑭ 마라도 Mara-Do	⑮ 죽 도 Chuk-Do	16 흑산도 Huksan-Do	⑰ 홍 도 Hong-Do	18 목 포 Mokpo	19 군 산 Kunsan	⑳ 어청도 Ochong-Do	㉑ 격렬비도 Kyongnyol bi-Do	㉒ 부 도 Pu-Do	㉓ 인 천 Inchon
10.86	11.52	10.05	—	15.01	9.35	13.31	11.58	5.55	1.51	9.52	8.93	7.50	3.78
9.92	12.42	10.72	—	15.19	7.93	12.56	9.42	6.55	2.81	8.56	7.14	6.20	2.82
9.67	11.37	8.94	—	15.35	6.78	12.52	8.20	4.60	1.48	6.91	6.41	4.40	0.56
10.15	**11.77**	**9.90**	—	**15.18**	**8.02**	**12.79**	**9.77**	**5.57**	**1.80**	**8.33**	**7.49**	**6.03**	**2.38**
9.87	11.84	9.83	—	14.66	7.30	13.00	7.82	4.34	1.28	5.72	5.03	3.35	1.60
9.60	13.05	9.53	—	14.50	7.69	12.85	7.74	5.59	2.71	4.92	4.84	3.35	2.05
9.21	13.30	9.91	—	14.57	7.46	13.37	7.59	6.38	3.61	4.32	4.83	3.31	2.21
9.56	**12.73**	**9.76**	—	**14.58**	**8.15**	**13.07**	**7.73**	**5.44**	**2.53**	**4.89**	**4.90**	**3.33**	**1.95**
9.23	12.94	10.16	—	14.84	9.39	12.10	7.51	6.86	4.92	4.50	4.63	3.60	3.58
10.09	13.20	10.77	—	14.90	9.45	12.60	7.58	8.68	5.25	4.74	4.75	4.15	4.52
10.41	13.17	12.62	—	14.84	9.43	12.10	8.05	8.30	7.95	5.09	4.61	4.82	4.70
9.91	**13.10**	**11.18**	—	**14.86**	**9.42**	**12.27**	**7.71**	**7.95**	**6.04**	**4.78**	**4.66**	**4.19**	**4.27**
10.70	11.88	13.32	—	14.17	9.45	11.80	8.64	9.48	8.08	5.32	5.55	5.45	6.39
12.06	12.46	13.90	—	14.58	11.16	12.00	8.72	12.07	12.21	5.84	7.50	6.50	9.54
13.06	12.43	12.96	—	15.08	12.18	11.90	9.46	12.72	12.73	6.92	7.56	7.70	10.77
12.27	**12.26**	**13.39**	—	**14.61**	**10.93**	**11.90**	**8.94**	**11.42**	**11.01**	**5.69**	**6.87**	—	**8.90**
13.82	13.04	13.64	—	15.31	12.15	12.50	10.43	14.59	15.21	8.90	7.40	8.95	—
14.34	13.36	14.69	—	16.34	12.60	12.56	11.17	16.44	17.84	10.22	9.85	10.70	—
16.09	14.03	15.45	—	17.49	12.65	12.92	11.83	18.36	20.34	11.64	13.82	12.90	—
14.75	**13.44**	**14.59**	—	**16.38**	**12.47**	**12.66**	**11.14**	**16.46**	12.79	**9.95**	**16.02**	**10.85**	—
16.36	14.39	14.95	—	17.58	16.88	16.30	12.86	19.81	21.39	13.32	16.09	14.50	—
16.54	15.71	16.49	—	17.40	18.61	18.00	14.53	21.09	23.82	16.01	17.92	16.15	—
19.28	15.79	17.06	—	17.37	18.02	20.60	16.12	21.77	24.02	18.44	19.20	18.25	—
17.39	**15.29**	**16.35**	—	**17.45**	**17.84**	**18.30**	**14.50**	**20.89**	**23.08**	**15.92**	**17.74**	**16.30**	—

연 안 정 지 월
Surface Temperatures

월 Month	관측지명 Station / 순 Ten day	① 주문진 Chumun-jin	② 울능도 Ulneung-Do	③ 축 변 Chuk-byon	④ 포 항 Pohang	⑤ 장기갑 Changi gap	⑥ 울 기 Ulgi	⑦ 부 산 Pusan	⑧ 가덕도 Kadok-Do	⑨ 여 수 Yosu
7월 Jul.	상 순 1st	—	15.00	—	20.61	—	16.39	19.15	18.76	—
	중 순 2nd	—	15.58	—	22.34	—	16.67	20.78	19.29	—
	하 순 3rd	—	17.86	—	23.87	—	17.67	21.55	19.23	—
	월평균 Mean	—	**16.08**	—	**22.27**	—	**16.91**	**20.49**	**19.09**	—
8월 Aug.	상 순 1st	21.73	—	—	19.88	—	16.22	21.70	19.18	—
	중 순 2nd	22.51	—	—	19.98	—	16.94	21.82	20.51	—
	하 순 3rd	21.17	—	—	23.26	—	22.64	23.74	23.36	—
	월평균 Mean	**21.80**	—	—	**21.01**	—	**18.57**	**22.42**	**20.99**	—
9월 Sep.	상 순 1st	21.97	—	—	22.56	—	22.17	23.24	22.72	—
	중 순 2nd	19.42	—	—	20.24	—	21.63	21.95	22.03	—
	하 순 3rd	19.80	—	—	20.53	—	21.25	21.08	20.03	—
	월평균 Mean	**20.39**	—	—	**21.11**	—	**21.68**	**22.09**	**21.59**	—
10월 Oct.	상 순 1st	19.10	—	—	20.34	—	20.59	20.66	18.77	—
	중 순 2nd	17.50	—	—	18.50	—	17.21	19.09	17.80	—
	하 순 3rd	16.09	—	—	17.05	—	15.52	18.18	17.43	—
	월평균 Mean	**17.56**	—	—	**18.66**	—	**17.77**	**19.31**	**18.00**	—
11월 Nov.	상 순 1st	13.68	—	—	15.27	15.35	14.90	16.59	16.35	—
	중 순 2nd	13.02	—	—	14.21	14.72	14.96	15.93	16.06	—
	하 순 3rd	9.41	—	—	11.58	12.78	9.08	13.77	15.06	—
	월평균 Mean	**12.04**	—	—	**13.69**	**14.28**	**12.98**	**15.43**	**15.82**	—
12월 Dec.	상 순 1st	7.41	—	—	10.44	11.03	8.70	12.60	13.89	9.72
	중 순 2nd	7.89	—	—	10.48	10.41	9.57	13.36	13.08	8.91
	하 순 3rd	7.49	—	—	10.91	11.30	10.24	12.72	11.29	8.50
	월평균 Mean	**7.59**	—	—	**10.61**	**10.91**	**9.54**	**12.89**	**12.72**	**9.04**
년 Year	**년평균 Mean**	**13.66**	—	—	**14.92**	—	**14.25**	**15.77**	**15.62**	—

별 표 면 수 온

at the Shore Stations

⑩ 소리도 Sori-Do	⑪ 거문도 Komun Do	⑫ 자지도 Chaji-Do	⑬ 산 지 Sanji	⑭ 마라도 Mara Do	⑮ 죽 도 Chuk-Do	⑯ 흑산도 Huksan-Do	⑰ 홍 도 Hong-Do	⑱ 목 포 Mokpo	⑲ 군 산 Kunsan	⑳ 어청도 Ochong-Do	㉑ 격렬비도 Kyongnyolbi-Do	㉒ 부 도 Pu-Do	㉓ 인 천 Inchon
21.92	16.86	17.09	—	18.88	17.64	21.17	18.65	23.55	26.01	18.93	20.04	18.80	—
21.80	17.27	19.14	—	21.45	18.28	21.70	20.47	24.15	27.27	21.86	22.63	20.50	—
25.28	17.47	19.15	—	25.91	16.93	21.83	22.85	24.94	28.11	22.65	24.07	21.23	—
23.00	**17.19**	**18.46**	—	**22.08**	**17.62**	**21.57**	**20.66**	**24.21**	**27.13**	**21.15**	**22.27**	**20.12**	—
23.50	19.59	20.06	25.42	26.42	15.97	22.79	23.10	26.14	27.71	24.10	24.15	22.80	—
23.20	21.83	19.72	25.34	24.86	18.98	23.10	23.68	26.61	28.29	24.76	24.95	24.30	—
24.44	23.76	17.04	25.06	25.66	19.25	24.84	24.95	25.52	27.36	23.52	25.50	24.80	—
23.79	**21.73**	**18.94**	**25.27**	**25.64**	**18.07**	**23.54**	**23.91**	**26.09**	**27.78**	**24.13**	**24.87**	**23.96**	—
24.08	22.33	19.64	24.70	25.49	19.58	24.84	25.04	24.86	24.91	23.65	24.15	24.95	—
22.72	21.68	20.01	24.24	24.97	18.81	24.55	24.31	23.59	23.28	22.36	23.05	24.10	—
22.91	20.62	19.87	23.11	25.15	18.58	20.97	20.93	22.24	21.85	20.86	22.60	22.85	—
23.24	**21.54**	**19.51**	**24.02**	**25.21**	**18.99**	**22.14**	**23.43**	**23.56**	**23.31**	**22.29**	**23.27**	**23.97**	—
22.55	21.44	18.49	22.47	24.90	17.88	—	19.66	20.89	20.51	18.68	21.05	21.70	—
20.17	20.69	17.07	19.63	23.43	17.58	—	18.30	18.71	17.92	16.57	19.15	20.00	—
17.88	18.41	15.58	17.75	21.74	17.62	—	16.11	16.81	15.74	16.31	17.41	18.90	—
20.20	**20.18**	**17.07**	**19.95**	**23.36**	**17.69**	—	**18.02**	**18.80**	**18.06**	**17.19**	**19.20**	**20.20**	—
15.19	15.97	15.26	18.94	20.68	15.82	17.42	15.00	15.19	13.38	15.22	16.53	16.30	—
16.91	16.74	15.48	18.29	20.83	14.24	15.69	13.99	14.46	12.93	14.66	15.20	15.20	—
15.57	16.04	14.14	17.29	19.77	13.53	9.66	12.29	11.59	8.21	12.82	13.50	11.85	—
15.86	**16.25**	**14.96**	**18.11**	**20.43**	**14.53**	**14.26**	**13.76**	**13.75**	**11.51**	**14.23**	**15.08**	**14.45**	—
15.41	15.79	13.11	14.00	18.79	13.51	8.11	11.46	8.96	5.62	11.81	11.21	10.60	—
13.04	15.13	12.19	12.78	18.00	12.39	11.59	11.11	9.36	5.48	10.94	10.44	9.20	—
11.43	14.48	12.67	12.23	17.49	12.06	10.71	11.79	7.15	5.25	9.87	10.59	8.18	—
13.29	**15.10**	**12.66**	**13.00**	**18.09**	**12.65**	**10.14**	**11.46**	**8.49**	**5.45**	**10.87**	**10.75**	**9.33**	—
16.12	**15.88**	**14.73**	**17.53**	**18.82**	**13 86**	**15.93**	**14.09**	**15.22**	**14.70**	**13.29**	**12.64**	**13.27**	—

2. 연안정지 월별 표면수비중

Surface Water Density at the Shore Stations.

월 Month	순 Ten day	⑦ 부산 Pusan	㉓ 인천 Inchon	월 Month	순 Ten day	⑦ 부산 Pusan	㉓ 인천 Inchon
1월 Jan.	상 순 1st	25.33	—	7월 Jul.	상 순 1st	23.61	—
	중 순 2nd	25.60	—		중 순 2nd	23.95	—
	하 순 3rd	25.27	—		하 순 3rd	23.76	—
	월평균 Mean	**25.40**	—		**월평균 Mean**	**23.77**	—
2월 Feb.	상 순 1st	25.17	24.35	8월 Aug.	상 순 1st	23.06	—
	중 순 2nd	25.09	24.03		중 순 2nd	23.42	—
	하 순 3rd	25.14	24.11		하 순 3rd	22.52	—
	월평균 Mean	**25.13**	**24.16**		**월평균 Mean**	**23.00**	—
3월 Mar.	상 순 1st	25.42	23.96	9월 Sep.	상 순 1st	23.87	—
	중 순 2nd	25.42	23.79		중 순 2nd	24.14	—
	하 순 3rd	25.19	24.07		하 순 3rd	24.55	—
	월평균 Mean	**25.34**	**23.94**		**월평균 Mean**	**24.19**	—
4월 Apr.	상 순 1st	25.05	—	10월 Oct.	상 순 1st	22.88	—
	중 순 2nd	25.12	—		중 순 2nd	23.51	—
	하 순 3rd	25.49	—		하 순 3rd	24.20	—
	월평균 Mean	**25.22**	—		**월평균 Mean**	**23.45**	—
5월 May	상 순 1st	25.37	—	11월 Nov.	상 순 1st	23.87	—
	중 순 2nd	25.23	—		중 순 2nd	24.14	—
	하 순 3rd	25.14	—		하 순 3rd	24.55	—
	월평균 Mean	**25.25**	—		**월평균 Mean**	**24.19**	—
6월 Jun.	상 순 1st	24.98	—	12월 Dec.	상 순 1st	24.54	—
	중 순 2nd	25.11	—		중 순 2nd	25.04	—
	하 순 3rd	25.00	—		하 순 3rd	25.24	—
	월평균 Mean	**25.03**	—		**월평균 Mean**	**24.94**	—

제 2 편

횡단정선 해양관측성적

PART 2

SECTIONAL OCEANOGRAPHIC OBSERVATIONS

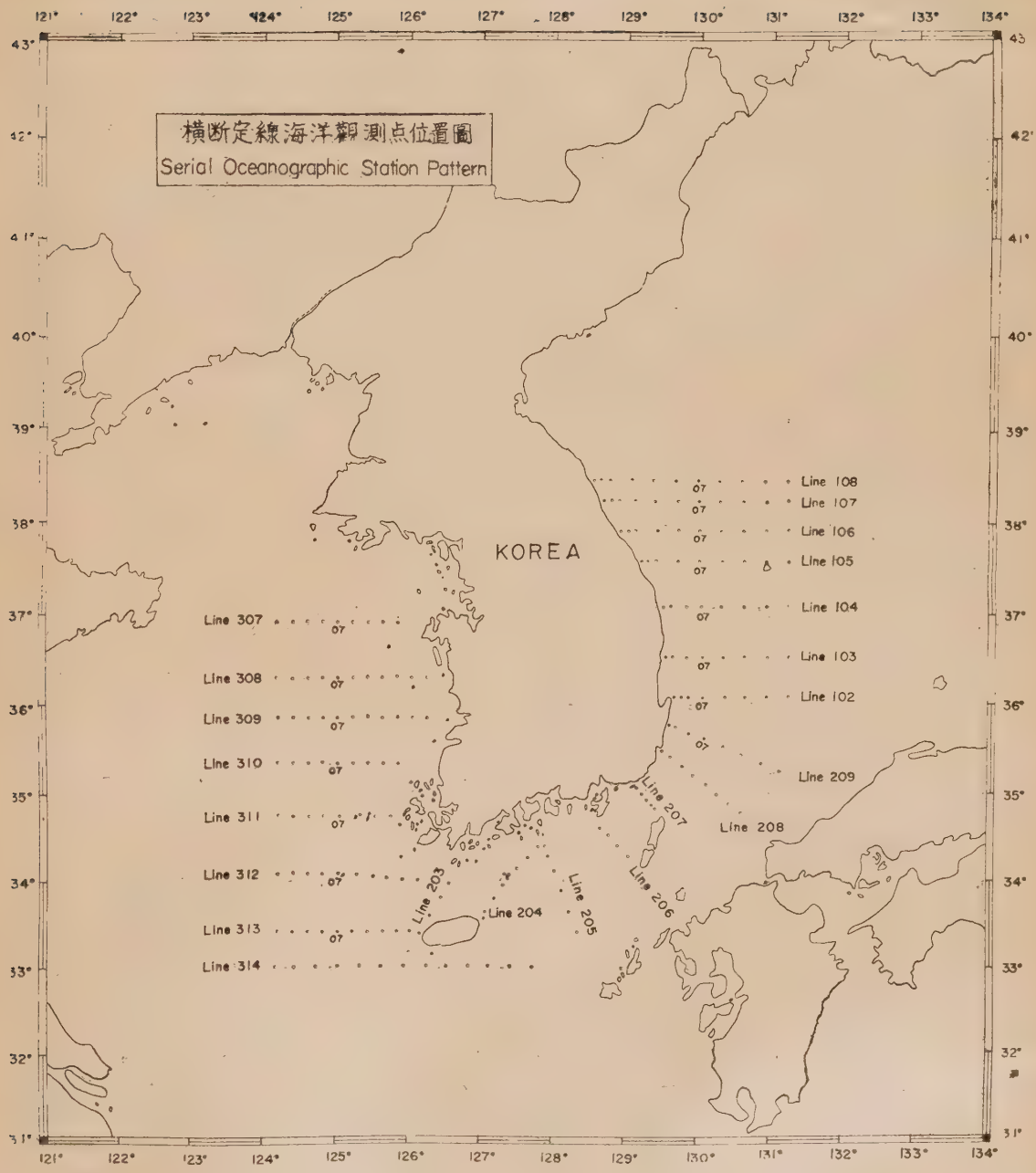
1962

목 차

횡단정선 해양관측점 위치도 23
횡단정선 해양관측점 위치표 24
1. 동해 해양조사성적 25
A. 108선 해양관측성적 27
B. 107선 해양관측성적 28
C. 106선 해양관측성적 29
D. 105선 해양관측성적 31
E. 104선 해양관측성적 33
F. 103선 해양관측성적 36
G. 102선 해양관측성적 39
2. 남해 해양조사성적 43
A. 209선 해양관측성적 45
B. 208선 해양관측성적 49
C. 207선 해양관측성적 56
D. 206선 해양관측성적 62
E. 205선 해양관측성적 66
F. 204선 해양관측성적 71
G. 203선 해양관측성적 74
3. 서해 해양조사성적 77
A. 314선 해양관측성적 79
B. 313선 해양관측성적 81
C. 312선 해양관측성적 83
D. 311선 해양관측성적 87
E. 310선 해양관측성적 90
F. 309선 해양관측성적 93
G. 308선 해양관측성적 96
4. 부유생물조사 99
A. 107선 부유생물 조사성적 101
B. 106선 부유생물 조사성적 103
C. 105선 부유생물 조사성적 104
D. 104선 부유생물 조사성적 106
E. 103선 부유생물 조사성적 108
F. 102선 부유생물 조사성적 110
G. 209선 부유생물 조사성적 114
H. 208선 부유생물 조사성적 118
I. 207선 부유생물 조사성적 126
J. 206선 부유생물 조사성적 134
K. 205선 부유생물 조사성적 138
L. 204선 부유생물 조사성적 142
M. 203선 부유생물 조사성적 143
N. 314선 부유생물 조사성적 144
O. 313선 부유생물 조사성적 146
P. 312선 부유생물 조사성적 148
Q. 311선 부유생물 조사성적 150
R. 310선 부유생물 조사성적 152
S. 309선 부유생물 조사성적 154
T. 308선 부유생물 조사성적 156

CONTENTS

Oceanographic Station Pattern. 23
Position of the Serial Oceanographic Stations. 24
1. Oceanographic Observations, Eastern Waters. 25
A. Oceanographic Data, Line 108 27
B. Oceanographic Data, Line 107 28
C. Oceanographic Data, Line 106 29
D. Oceanographic Data, Line 105 31
E. Oceanographic Data, Line 104 33
F. Oceanographic Date, Line 103 36
G. Oceanographic Data, Line 102 39
2. Oceanographic Observations, Southern Waters. 43
A. Oceanographic Data, Line 209 45
B. Oceanographic Data, Line 208 49
C. Oceanographic Data, Line 207 56
D. Oceanographic Data, Line 206 62
E. Oceanographic Data, Line 205 66
F. Oceanographic Data, Line 204 71
G. Oceanographic Data, Line 203 74
3. Oceanographic Observations, Western Waters. 77
A. Oceanographic Data, Line 314 79
B. Oceanographic Data, Line 313 81
C. Oceanographic Data, Line 312 83
D. Oceanographic Data, Line 311 87
E. Oceanographic Data, Line 310 90
F. Oceanographic Data, Line 309 93
G. Oceanographic Data, Line 308 96
4. Plankton Data. 99
A. Plankton Data, Line 107 101
B. Plankton Data, Line 106 103
C. Plankton Data, Line 105 104
D. Plankton Data, Line 104 106
E. Plankton Data. Llne 103 108
F. Plankton Data, Line 102 110
G. Plankton Data, Line 209 114
H. Plankton Data, Line 208 118
I. Plankton Data, Line 207 126
J. Plankton Data, Line 206 134
K. Plankton Data, Line 205 138
L. Plankton Data, Line 204 142
M. Plankton Data, Line 203 143
N. Plankton Data, Line 314 144
O. Plankton Data, Line 313 146
P. Plankton Data, Line 312 148
Q. Plankton Data, Line 311 150
R. Plankton Data, Llne 310 152
S. Plankton Data, Line 309 154
T. Plankton Data, Line 308 156


横断定線海洋観測点位置圖
Serial Oceanographic Station Pattern
KOREA
Line 307
Line 308
Line 309
Line 310
Line 311
Line 312
Line 313
Line 314
Line 203
Line 204
Line 205
Line 206
Line 207
Line 208
Line 209
Line 102
Line 103
Line 104
Line 105
Line 106
Line 107
Line 108

횡단정선 해양관측점 위치표

Position of the Serial Oceanographic Stations.

Line \ Sta. No	Position	01	02	03	04	05	06	07	08	09	10	11
108	Lat. (N)	38°27′	38°27′	38°27′	38°27′	38°27′	38°27′	38°27′				
	Long. (E)	128°31′	128°36′	128°45′	128°04′	129°22′	129°41′	130°00′				
107	Lat. (N)	38°13′	38°13′	38°13′	38°13′	38°13′	38°13′	38°13′	38°13′	38°13′	38°13′	38°13′
	Long. (E)	128°39′	128°43′	128°51′	129°04′	129°23′	129°41′	130°00′	130°19′	130°38′	130°56′	131°16′
106	Lat. (N)		37°54′	37°54′	37°54′	37°54′	37°54′	37°54′	37°54′	37°54′	37°54′	37°54′
	Long. (E)		128°52′	128°57′	129°04′	129°22′	129°41′	130°00′	130°19′	130°38′	130°56′	131°15′
105	Lat. (N)			37°33′	37°33′	37°33′	37°33′	37°33′	37°33′	37°33′	37°33′	37°33′
	Long. (E)			129°10′	129°15′	129°22′	129°41′	130°00′	130°19′	130°37′	130°56′	131°16′
104	Lat. (N)				37°03′	37°03′	37°03′	37°03′	37°03′	37°03′	37°03′	37°03′
	Long. (E)				129°29′	129°34′	129°47′	130°00′	130°19′	130°37′	130°55′	131°14′
103	Lat. (N)				36°30′	36°30′	36°30′	36°30′	36°30′	36°30′	36°30′	36°30′
	Long. (E)				129°30′	129°35′	129°48′	130°00′	130°19′	130°37′	130°55′	131°14′
102	Lat. (N)				36°05′	36°05′	36°05′	36°05′	36°05′	36°05′	36°05′	36°05′
	Long. (E)				129°37′	129°42′	129°48′	130°00′	130°19′	130°37′	130°55′	131°14′
209	Lat. (N)				35°47′	35°45′	35°41′	35°37′	35°31′	35°24′	35°18′	
	Long. (E)				129°33′	129°39′	129°50′	130°01′	130°17′	130°34′	130°51′	
208	Lat. (N)	35°28′	35°24′	35°18′	35°11′	35°05′	34°58′	34°52′	34°46′			
	Long. (E)	129°27′	129°34′	129°44′	129°53′	130°02′	130°12′	130°21′	130°31′			
207	Lat. (N)	35°01′	34°58′	34°54′	34°50′	34°46′						
	Long. (E)	129°07′	129°11′	129°15′	129°20′	129°24′						
206	Lat. (N)	34°35′	34°30′	34°23′	34°15′	34°08′						
	Long. (E)	128°34′	128°41′	128°50′	128°58′	129°06′						
205	Lat. (N)	34°23′	34°15′	34°06′	33°52′	33°38′						
	Long. (E)	127°49′	127°53′	127°57′	128°03′	128°09′						
204	Lat. (N)	34°21′	34°14′	34°07′	33°54′	33°45′	33°36′	33°21′	33°11′			
	Long. (E)	127°44′	127°36′	127°27′	127°15′	127°09′	127°03′	126°58′	126°58′			
203	Lat. (N)	33°58′	33°49′	33°36′	33°23′	33°10′						
	Long. (E)	126°31′	126°25′	126°16′	126°07′	125°58′						
314	Lat. (N)	33°00′	33°00′	33°00′	33°00′	33°00′	33°00′	33°00′	33°00′	33°00′	33°00′	
	Long. (E)	127°41′	127°23′	127°05′	126°48′	126°30′	126°12′	125°54′	125°36′	125°18′	125°00′	
313	Lat. (N)		33°24′	33°24′	33°24′	33°24′	33°24′	33°24′	33°24′	33°24′	33°24′	33°24′
	Long. (E)		126°00′	126°48′	125°36′	125°24′	125°12′	125°00′	124°48′	124°36′	124°24′	124°12′
312	Lat. (N)		33°59′	34°00′	34°02′	34°03′	34°05′	34°06′	34°06′	34°06′	34°06′	34°06′
	Long. (E)		126°06′	125°54′	125°42′	125°30′	125°18′	125°00′	124°48′	124°36′	124°23′	124°11′
311	Lat. (N)				34°43′	34°43′	34°43′	34°43′	34°43′	34°43′	34°43′	34°43′
	Long. (E)				125°43′	125°31′	125°19′	125°00′	124°48′	124°36′	124°23′	124°11′
310	Lat. (N)			35°20′	32°20′	32°20′	32°20′	32°20′	32°20′	32°20′	32°20′	32°20′
	Long. (E)			125°48′	125°36′	125°24′	125°12′	125°00′	124°48′	124°36′	124°24′	124°12′
309	Lat. (N)	35°51′	35°51′	35°51′	35°51′	35°51′	35°51′	35°51′	35°51′	35°51′	35°51′	35°51′
	Long. (E)	126°14′	126°01′	125°49′	125°37′	125°25′	125°12′	125°00′	124°48′	124°36′	124°23′	124°11′
308	Lat. (N)	36°19′	36°19′	36°19′	36°19′	36°19′	36°19′	36°19′	36°19′	36°19′	36°19′	36°19′
	Long. (E)	126°13′	126°02′	125°50′	125°37′	125°25′	125°13′	125°00′	124°48′	124°35′	124°23′	124°11′
307	Lat. (N)			36°57′	36°56′	36°56′	36°56′	36°56′	36°56′	36°56′		
	Long. (E)			126°00′	125°38′	125°25′	125°13′	125°00′	124°47′	125°35′		

동 해 해 양 조 사 성 적

OCEANOGRAPHIC OBSERVATIONS

EASTERN WATERS

1 9 6 2

A. 108선 해 양 관 측 성 적

Oceanographic Data, Line 108

Date		① June 1962			
Station Number		01	02	03	04
Day		26	26	26	26
Item	Time / Z(m)	1105	1200	1255	1410
T °C	0	16.70	17.10	12.55	14.10
	10	15.06	14.36	15.80	14.07
	25	7.92	8.58	8.78	7.11
	50	—	4.51	4.07	2.12
	100	—	2.25	2.64	1.74
	150	—	1.98	1.71	1.55
	200	—	1.81	1.55	1.38
	300	—	—	—	—
	Botm.	6.62	—	—	—
S ‰	0	33.22	33.13	33.31	33.50
	10	33.24	33.30	33.51	33.50
	25	33.59	33.59	33.40	33.66
	50	—	33.59	33.62	33.77
	100	—	33.87	34.02	33.95
	150	—	33.89	34.02	33.02
	200	—	34.02	34.02	33.02
	300	—	—	—	—
	Botm.	33.64	—	—	—
Sounding (m)		85	—	—	—
Transp. (m)		16	16.5	16.5	16.5
Color		—	—	—	—
Wave		2	2	3	3
Swell		1	1	1	1
Air Temp. (°C)		17.2	16.5	17.3	17.8
Air Press. (mm)		753	753	753	753
Wind		S. 3	S. 3	S. 3	S. 3
Cloud		St. 9	St. 9	St. 8	St. 8
Weather		R	C	C	C

B. 107선 해양관측성적

Oceanographic Data, Line 107

Date		① April 1962						② June 1962			
Station Number		02	03	04	05	06	07	01	02	03	04
Day		13	13	13	13	13	13	26	26	26	26
Item	Time / Z(m)	0715	0850	1055	1315	1530	1800	1822	1715	1625	1530
T °C	0	9.30	8.80	7.30	7.70	9.30	9.20	16.60	17.00	17.20	16.90
	10	9.00	7.81	6.82	7.00	8.91	8.29	15.79	15.19	15.79	16.75
	25	8.13	6.70	5.69	6.58	7.30	7.72	9.02	8.41	8.14	7.92
	50	5.03	5.72	5.65	5.36	5.31	6.28	5.45	5.25	5.13	4.04
	100	1.18	4.20	1.70	3.82	3.08	3.00	—	2.07	2.09	1.67
	150	0.70	1.88	1.13	1.70	1.60	1.38	—	1.91	1.61	1.57
	200	0.65	1.06	0.84	0.58	1.12	0.89	—	1.59	1.40	1.29
	300	0.60	0.32	—	0.12	0.58	0.15	—	—	—	—
	Botm.	—	—	—	—	—	—	3.58	—	—	—
S ‰	0	34.11	34.13	34.11	34.02	34.11	34.18	33.22	33.22	33.49	33.48
	10	34.20	34.11	34.16	33.98	34.11	34.20	33.22	33.40	33.59	33.48
	25	34.11	34.04	33.96	34.22	34.15	34.13	33.59	33.49	33.78	33.91
	50	34.02	34.04	34.11	34.04	34.04	34.11	33.68	33.55	33.93	33.93
	100	34.04	33.95	33.95	33.95	33.95	33.95	—	33.86	33.96	33.93
	150	34.02	34.04	33.93	33.98	34.04	33.95	—	33.93	34.02	34.02
	200	33.96	33.95	34.00	33.95	34.04	34.11	—	34.06	34.02	34.02
	300	34.11	34.04	—	34.07	33.95	34.00	—	—	—	—
	Botm.	—	—	—	—	—	—	34.78	—	—	—
Sounding (m)		—	—	—	—	—	—	150	—	—	—
Transp. (m)		11	9	11	9	9	—	14.5	16.5	17	16.5
Color		3.5	3.5	3.5	4	4	—	—	—	—	—
Wave		2	1	1	4	3	4	3	3	3	1
Swell		1	1	1	1	2	1	1	1	1	2
Air Temp. (°C)		9.0	10.0	9.60	9.0	8.90	8.00	17.1	18.2	19.2	19.4
Air Press. (m)		763.5	763.5	763.5	762	762	761.5	753	753	753.5	753.5
Wind		NE. 1	NE. 1	NE. 1	NE. 2	NE. 2	NE. 2	SE. 3	NE. 3	SE. 3	SE. 3
Cloud		Sc. 9	Cu. 9	Cu. 3	Cc. 2	—	Cb. 3	St. 6	St. 7	St. 7	St. 8
Weather		C	C	BC	B	B	BC	BC	BC	BC	C

C. 106선 해 양 관 측 성 적

Oceanographic Data, Line 106

Date		① April 1962							② June 1962		
Station Number		02	03	04	05	06	07	08	02	03	04
Day		14	14	14	14	14	14	13	28	28	28
Item	Time / Z(m)	1020	0840	0700	0505	0235	2400	2135	0600	0805	0900
T °C	0	9.90	9.30	9.00	8.30	9.50	10.10	10.30	15.70	16.80	16.96
	10	9.10	8.99	8.61	8.02	8.92	9.60	9.58	15.87	15.69	15.81
	25	5.92	8.97	7.03	6.97	8.53	9.21	9.40	10.21	14.22	8.01
	50	—	6.90	5.95	5.90	7.09	8.23	9.29	—	3.95	4.17
	100	—	3.35	4.93	4.80	3.45	5.58	7.23	—	2.55	2.02
	150	—	2.40	2.18	3.38	1.42	1.91	4.12	—	2.03	1.59
	200	—	—	0.67	1.10	0.93	0.98	1.86	—	—	1.25
	300	—	—	0.39	0.73	0.54	0.58	1.49	—	—	1.00
	Botm.	—	—	—	—	—	—	—	6.85	1.18	—
S ‰	0	33.86	34.11	34.16	33.93	34.13	34.20	34.20	33.31	33.33	33.22
	10	33.77	34.22	34.13	34.09	34.15	34.20	34.22	33.37	33.40	33.49
	25	33.68	34.11	34.11	34.13	34.16	34.15	33.16	33.51	33.53	33.86
	50	—	34.05	34.09	34.05	—	34.25	34.20	—	33.68	34.02
	100	—	34.04	33.96	33.95	34.04	34.05	34.09	—	33.10	34.02
	150	—	33.95	33.95	34.02	33.96	33.95	34.02	—	33.91	34.02
	200	—	—	34.07	33.93	33.93	34.05	33.95	—	—	34.04
	300	—	—	34.02	33.98	34.11	33.95	33.95	—	—	34.63
	Botm.	—	—	—	—	—	—	—	33.59	33.92	—
Sounding (m)		40	180	—	—	—	—	—	40	180	—
Transp. (m)		10	9	10	—	—	—	—	14.5	18	18
Color		4	4	4	—	—	—	—	—	—	—
Wave		1	3	3	—	—	—	—	2	2	2
Swell		1	1	2	1	1	1	1	1	1	1
Air Temp. (°C)		12.5	10.5	9.2	7.5	7.9	6.7	7.0	16.2	16.8	17.1
Air Press. (mm)		765	765	764	764	763.5	763.5	764	758	758	757
Wind		S. 1	W. 2	W. 2	W. 2	SW. 2	NW. 2	NE. 2	E. 1	E. 2	E. 2
Cloud		Cu. 1	0	0	2	—	—	—	St. 8	St. 8	Ci. 9
Weather		B	B	B	B	BC	BC	BC	C	C	C

Date		② June 1962				③ August 1962				
Station Number		05	06	07	08	02	03	04	05	06
Day		28	28	28	28	4	4	4	4	4
Item	Time / Z(m)	1100	1300	1500	1720	1030	1115	1205	1440	1715
T °C	0	17.40	17.60	18.50	18.20	22.10	22.30	22.00	20.80	21.00
	10	15.19	13.47	14.68	16.26	19.54	15.61	20.58	20.00	20.84
	25	7.62	6.51	7.71	10.45	13.85	10.91	13.47	20.50	19.83
	50	3.38	3.55	5.08	7.59	—	8.82	7.60	12.31	8.33
	100	1.98	1.82	2.35	5.53	—	4.44	4.58	5.10	4.83
	150	1.62	1.35	1.32	2.47	—	—	2.55	3.21	2.28
	200	0.97	0.71	1.01	1.65	—	—	2.39	1.73	1.61
	300	0.81	0.31	0.82	0.89	—	—	1.35	0.84	0.80
	400	—	—	—	—	—	—	0.90	0.57	0.50
	500	—	—	—	—	—	—	0.64	0.52	0.35
	Botm.	—	—	—	—	10.66	2.36	—	—	—
S ‰	0	33.59	33.77	33.59	33.68	31.26	30.95	31.18	33.63	33.50
	10	33.59	33.84	34.11	33.62	31.94	32.86	31.18	33.66	33.58
	25	33.93	34.02	34.11	34.18	32.99	32.94	31.40	34.07	33.57
	50	33.93	34.02	34.11	34.18	—	33.24	33.08	33.82	34.00
	100	33.93	34.02	34.11	34.11	—	33.30	33.28	33.92	34.02
	150	33.93	34.02	34.11	33.95	—	—	33.73	34.00	33.89
	200	34.02	34.02	34.11	34.02	—	—	33.62	33.91	33.91
	300	34.02	34.09	34.11	34.09	—	—	33.89	33.91	33.91
	400	—	—	—	—	—	—	33.91	33.91	33.86
	500	—	—	—	—	—	—	33.91	33.93	33.95
	Botm.	—	—	—	—	33.39	33.66	—	—	—
Sounding (m)		—	—	—	—	40	180	—	—	—
Transp. (m)		18.5	18.5	19.0	18.5	—	9	9.5	22.5	18
Color		—	—	—	—	—	—	—	—	—
Wave		3	3	3	3	3	4	4	4	5
Swell		1	1	1	1	1	1	1	1	1
Air Temp. (°C)		18.3	18.5	19.5	19.2	22.0	22.9	22.0	22.5	22.5
Air Press. (mm)		758	758	758	758	760.5	760.5	761	760	760
Wind		E. 2	E. 2	E. 3	E. 2	SE. 2	SE. 2	SE. 2	SE. 2	SE. 2
Cloud		Cs. 8	St. 3	Cc. 5	Cu. 3	Sc. 4	Sc. 5	Sc. 3	Cc. 6	Sc. 8
Weather		C	BC	BC	BC	BC	BC	BC	BC	C

D. 105선 해 양 관 측 성 적

Oceanographic Data, Line 105

Date		① April 1962					② June 1962				
Station Number		05	06	07	08	09	03	04	05	06	07
Day		10	10	10	10	10	24	24	24	24	24
Item	Time / Z(m)	1300	1105	0830	0530	0200	2000	1925	1835	1700	1500
T °C	0	10.30	10.50	10.60	10.50	10.50	17.10	16.80	17.20	17.20	17.30
	10	9.88	10.20	10.12	10.08	10.02	16.50	16.74	14.62	13.82	15.11
	25	9.80	9.79	9.82	9.92	9.92	14.95	14.82	10.32	8.58	8.01
	50	8.90	9.40	9.80	9.84	9.78	—	9.25	8.15	7.72	5.77
	100	5.72	7.38	9.31	9.79	9.38	—	4.11	4.68	5.73	2.86
	150	2.18	5.95	9.29	9.23	8.94	—	1.89	2.41	3.06	1.15
	200	1.12	1.89	9.07	9.21	8.58	—	—	1.61	1.59	0.98
	300	0.76	0.72	1.59	8.68	—	—	—	1.21	0.72	0.71
	Botm.	—	—	—	—	—	6.75	1.85	—	—	—
S ‰	0	34.34	34.11	34.20	34.11	34.20	33.66	33.66	33.73	33.77	33.66
	10	34.22	34.11	34.11	34.20	34.11	33.66	33.59	33.73	33.68	33.66
	25	34.20	34.22	34.11	34.11	34.11	33.77	33.68	34.20	34.20	34.18
	50	34.31	34.16	34.24	34.11	34.20	—	34.05	34.38	34.15	34.02
	100	34.07	34.20	34.13	34.20	34.16	—	33.93	34.02	34.09	33.93
	150	33.95	34.13	34.11	34.14	34.13	—	34.02	33.96	34.13	34.02
	200	34.02	33.91	34.13	34.13	34.22	—	—	34.02	34.02	34.02
	300	34.04	33.95	34.02	34.20	34.11	—	—	34.02	33.22	34.02
	Botm.	—	—	—	—	—	33.93	33.98	—	—	—
Sounding (m)		—	—	—	—	—	80	179	—	—	—
Transp. (m)		—	—	—	—	—	—	—	—	16	18
Color		—	—	3.5	—	—	—	—	—	—	—
Wave		5	4	2	2	—	1	2	2	3	3
Swell		2	2	1	1	1	1	1	1	1	1
Air Temp. (°C)		8.4	9.8	10.8	9.5	9.8	17.0	17.3	17.3	17.8	18.5
Air Press. (mm)		764	764	764	764	764	758	758	758.5	758	758
Wind		NW. 3	NW. 2	NE. 1	E. 1	N. 1	NE. 1	NE. 1	NE. 1	NE. 1	NE. 1
Cloud		Cu. 4	Cu. 9	Sc. 10	Cb. 10	—	St. 9	St. 9	St. 9	St. 7	St. 8
Weather		BC	C	C	R	C	C	C	C	C	C

Date			③ August 1962							
Station Number		08	03	04	05	06	07	08	09	10
Day		24	2	2	2	2	2	1	1	1
Item	Time / Z(m)	1300	1040	1000	0715	0415	0120	2220	1935	1710
T °C	0	18.20	22.80	22.30	24.20	23.70	21.40	22.68	23.50	23.30
	10	16.18	22.00	21.79	23.48	18.01	17.72	18.74	21.67	21.71
	25	14.55	14.30	—	11.84	7.56	10.76	14.80	14.93	14.05
	50	8.01	—	5.55	6.35	6.93	8.50	13.48	12.15	10.47
	100	3.11	—	2.71	2.54	2.75	5.57	6.33	9.50	—
	150	1.59	—	—	1.60	1.61	2.84	7.09	8.20	—
	200	1.21	—	—	1.24	1.27	1.74	3.32	8.51	—
	300	0.81	—	—	0.72	1.00	1.60	1.20	4.00	—
	400	—	—	—	—	0.65	0.54	0.56	1.50	—
	500	—	—	—	—	—	0.47	0.58	—	—
	Botm.	—	9.24	1.89	—	—	—	—	—	9.66
S ‰	0	34.29	32.11	31.98	33.01	32.59	32.92	33.12	32.81	33.68
	10	33.91	32.16	32.16	33.31	33.24	33.12	34.09	33.64	33.13
	25	34.20	32.90	32.94	33.57	33.64	33.19	34.00	34.27	34.09
	50	34.13	—	33.28	33.96	34.09	34.04	34.16	34.29	34.16
	100	34.00	—	33.77	33.93	34.00	34.22	34.18	34.24	—
	150	33.96	—	—	33.86	33.87	33.91	33.95	34.11	—
	200	33.96	—	—	33.91	33.84	33.87	33.89	34.13	—
	300	34.04	—	—	33.84	33.89	33.93	33.91	34.03	—
	400	—	—	—	—	34.02	33.95	34.04	33.91	—
	500	—	—	—	—	34.00	34.02	33.93	33.64	—
	Botm.	—	33.03	33.91	—	—	—	—	—	—
Sounding (m)		—	80	180	—	—	—	—	—	—
Transp. (m)		26	12.5	19	—	—	—	—	—	17.5
Color		—	—	—	—	—	—	—	—	—
Wave		3	6	6	4	3	2	2	2	2
Swell		2	1	1	1	1	1	1	1	1
Air Temp. (°C)		18.5	22.0	23.2	24.1	24.2	22.8	23.2	24.0	25.1
Air Press. (mm)		758	756	757	757	757	757	757	757.5	758
Wind		NE. 1	SE. 3	E. 3	NE. 2	NE. 2	NE. 2	NE. 2	NE. 1	NE. 2
Cloud		St. 9	Ns. 10	Ns. 10	Ns. 10	Ns. 10	Ns. 10	—	St. 10	Sc. 1
Weather		C	R	R	R	R	R	—	C	C

E. 104선 해양관측성적

Oceanographic Data, Line 104

Date		① April 1962							② June 1962		
Station Number		04	05	06	07	08	09	10	04	05	06
Day		9	9	9	9	9	9	9	24	24	24
Item	Time / Z(m)	0505	1000	1145	1420	1700	1930	2220	0235	0330	0510
T °C	0	9.90	10.10	10.60	10.70	10.70	10.80	10.60	16.50	18.00	18.60
	10	9.42	9.50	10.01	10.00	10.38	10.23	10.02	15.75	16.28	18.52
	25	9.05	8.98	9.65	9.82	9.75	9.88	9.72	14.51	14.11	12.81
	50	7.70	7.45	9.59	9.60	9.57	9.57	9.68	9.55	9.57	9.32
	100	—	4.73	9.08	8.28	9.48	9.37	9.33	—	4.29	9.10
	150	—	1.93	3.50	7.30	8.80	8.98	8.64	—	2.22	1.73
	200	—	—	2.91	5.78	7.98	8.80	7.82	—	—	1.28
	300	—	—	0.88	1.60	3.38	2.48	2.38	—	—	0.82
	Botm.	3.90	—	—	—	—	—	—	5.27	1.91	—
S ‰	0	34.33	34.34	34.18	34.18	34.22	35.01	34.15	33.42	33.10	34.25
	10	34.29	34.38	34.38	34.18	34.15	34.15	34.25	33.51	33.10	34.22
	25	34.33	34.22	34.31	34.38	34.13	34.15	34.20	33.50	34.04	34.40
	50	34.36	34.24	34.33	34.20	34.15	34.22	34.11	33.95	34.04	34.31
	100	—	34.18	34.38	34.29	34.18	34.63	34.15	—	33.68	34.02
	150	—	—	34.15	34.15	34.22	34.20	34.20	—	33.96	34.00
	200	—	—	34.04	—	34.18	34.20	34.04	—	—	34.04
	300	—	—	34.11	—	34.02	33.96	34.00	—	—	34.04
	Botm.	34.11	—	—	—	—	—	—	33.80	34.00	—
Sounding (m)		98	198	430	—	—	—	—	100	200	—
Transp. (m)		—	—	—	—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—	—	—	—
Wave		1	1	1	1	1	—	—	3	3	3
Swell		1	1	1	1	1	1	1	1	1	1
Air Temp. (°C)		9.2	9.2	10.0	11.2	9.9	9.5	9.4	16.3	16.5	16.7
Air Press. (mm)		765.5	766.0	766.0	765.5	764	764	765	757	758	758
Wind		N. 1	N. 1	N. 1	NE. 1	E. 1	E. 1	E. 1	N. 1	N. 1	NE. 1
Cloud		Cc. 10	Cc. 10	Cc. 10	Cc. 10	Cc. 10	—	—	St. 9	S. 9	Ci. 8
Weather		C	R	C	C	C	C	C	C	C	C

Date		June 1962		③ August 1962							
Station Number		07	08	04	05	06	07	08	09	10	S_1 37°19′ 130°56′
Day		24	24	1	1	1	1	1	1	1	1
Item	Time / Z(m)	0700	0900	0007	0153	0245	0430	0725	0957	1235	1510
T °C	0	18.90	18.00	18.30	22.80	22.90	23.60	23.90	24.20	24.40	24.30
	10	18.38	17.71	17.41	16.50	22.56	23.35	23.60	22.95	23.79	18.14
	25	16.88	19.22	14.16	11.81	14.40	14.85	14.08	11.79	13.81	13.78
	50	14.52	12.01	12.15	8.03	8.89	14.27	11.27	10.20	11.30	12.00
	100	9.46	9.39	—	4.68	3.30	9.25	9.79	9.73	9.68	9.58
	150	3.81	7.72	—	—	3.24	7.45	9.41	9.66	9.43	7.46
	200	1.65	4.98	—	—	1.65	3.43	8.90	9.34	7.79	3.79
	300	0.83	1.42	—	—	1.10	1.03	3.11	5.24	2.12	1.20
	400	—	—	—	—	0.60	0.48	0.73	1.10	0.81	0.62
	500	—	—	—	—	—	0.44	0.47	0.55	0.48	0.44
	Botm.	—	—	6.15	2.38	0.55	—	—	—	—	—
S ‰	0	34.38	34.20	33.49	33.28	32.72	32.97	33.93	34.09	34.71	33.40
	10	34.31	34.20	33.49	33.15	32.74	33.55	34.07	34.25	33.73	34.16
	25	34.56	34.22	34.18	33.40	33.28	33.84	34.41	34.25	34.28	34.22
	50	34.56	34.20	34.33	34.34	33.46	34.36	34.33	34.24	34.36	34.25
	100	34.36	34.27	—	33.64	33.73	34.24	34.25	34.24	34.24	34.20
	150	34.02	34.20	—	—	33.98	34.27	34.25	34.19	34.25	34.16
	200	34.02	34.02	—	—	33.98	34.02	34.25	34.19	34.19	33.82
	300	34.02	34.02	—	—	34.00	33.98	34.07	34.13	33.98	33.89
	400	—	—	—	—	34.05	34.07	34.05	34.05	33.98	33.91
	500	—	—	—	—	—	34.04	34.04	34.02	33.98	33.93
	Botm.	—	—	33.77	33.96	34.07	—	—	—	—	—
Sounding (m)		—	—	100	180	480	—	—	—	—	—
Transp. (m)		—	—	—	—	—	—	21.0	20	19.5	18.5
Color		—	—	—	—	—	—	—	—	—	—
Wave		3	3	3	4	4	2	2	2	2	2
Swell		1	1	1	1	1	1	1	1	1	1
Air Temp. (°C)		17.8	17.9	20.9	23.6	23.7	24.0	23.9	25.7	26.1	25.2
Air Press. (mm)		758	758	757	757	757	758	757.5	758	758.2	758
Wind		NE. 1	NE. 1	2	2	2	1	NE. 1	ESE. 1	ESE. 1	ENE. 1
Cloud		St. 9	Ci. 9	—	—	—	Cs. 2	Cs. 8	Cc. 6	St. 10	Sc. 9
Weather		C	C	BC	BC	BC	B	C	BC	C	C

④ October 1962						⑤ November 1962					
05	06	07	08	09	10	04	05	06	07	08	09
9	9	9	9	9	9	19	19	19	19	19	19
1045	0915	0805	0640	0442	0245	0428	0520	0640	0755	0940	1125
20.00	20.10	20.60	20.20	21.30	19.90	15.90	16.00	16.20	16.20	16.80	15.80
19.60	19.47	19.85	19.65	20.87	19.45	15.77	15.37	15.53	15.25	16.11	15.05
15.30	18.77	19.22	19.05	18.52	18.85	15.50	14.53	15.55	15.43	16.07	15.01
7.12	10.34	12.64	10.25	12.73	11.95	6.00	11.79	14.09	15.13	15.08	12.34
2.58	3.87	3.54	5.14	9.68	9.86	—	3.80	4.18	6.13	9.19	9.68
1.72	1.99	2.36	1.76	9.06	9.69	—	2.34	2.11	4.38	5.18	7.78
—	1.42	1.26	1.49	6.54	9.21	—	—	1.48	1.62	2.25	4.85
—	0.72	0.63	0.64	1.62	2.56	—	—	0.82	0.85	1.35	1.89
1.32	—	—	—	—	—	3.72	1.78	—	—	—	—
32.72	32.59	32.37	32.27	31.96	32.45	33.15	33.15	33.13	33.13	32.99	33.13
32.65	32.50	32.39	32.27	31.73	32.29	33.19	33.15	33.15	33.15	33.04	33.15
33.17	32.72	32.39	32.88	32.12	33.31	33.13	33.22	32.95	33.17	33.06	33.15
33.96	34.11	33.69	33.15	34.05	33.82	34.04	34.11	34.11	33.21	33.50	34.09
34.05	34.04	34.24	33.93	34.15	33.96	—	33.93	33.93	33.87	34.18	34.34
34.12	34.05	34.04	33.93	34.11	34.07	—	34.02	34.04	33.96	34.18	34.09
—	34.05	34.04	33.96	33.98	34.11	—	—	34.05	33.96	34.00	34.09
—	34.13	34.11	33.96	33.93	33.73	—	—	34.05	34.04	33.86	34.11
34.04	—	—	—	—	—	34.00	33.96	—	—	—	—
198	—	—	—	—	—	80	180	—	—	—	—
21	22	23	—	—	—	—	—	—	16	18	19
3	3	2	—	—	—	—	—	—	—	—	—
4	3	2	2	2	2	4	4	4	5	5	5
1	1	1	1	1	1	1	1	2	2	2	2
22	21.0	19.8	19.5	21.0	21.0	13.2	13.3	13.5	15.0	15.7	16.8
773	773	772	771	771	771	780	780	780	781	781	781
N. 2	N. 1	N. 1	W. 1	S. 1	E. 1	S. 1	N. 1	N. 2	EN. 2	N. 3	N. 3
Cs. 1	Ci. 2	St. 3	7	10	10	St. 7	St. 5	St. 6	St. 9	St. 7	Ci. 8
B	B	BC	BC	C	C	BC	BC	BC	R	BC	C

F. 103선 해 양 관 측 성 적

Oceanographic Data, Line 103

Date		① March 1962						② April 1962			
Station Number		04	05	06	07	08	09	04	05	06	07
Day		1	1	1	1	1	1	6	6	6	6
Item	Time / Z(m)	2325	2215	2025	1850	1645	1430	1210	1100	0900	0700
T °C	0	10.20	10.20	10.30	10.20	10.00	10.00	10.30	9.90	9.80	10.70
	10	10.12	10.13	10.17	10.15	9.76	9.98	9.39	9.10	9.12	10.14
	25	10.02	10.10	10.13	10.60	9.72	9.91	8.68	8.20	9.02	10.10
	50	9.96	10.05	10.01	9.83	9.68	9.88	6.82	5.60	8.21	9.50
	100	—	9.83	9.77	9.62	8.72	7.79	—	2.19	4.27	6.72
	150	—	—	6.80	6.28	3.95	2.21	—	—	1.53	4.28
	200	—	—	2.85	2.45	1.52	1.03	—	—	—	2.25
	300	—	—	1.02	0.55	0.56	0.46	—	—	—	0.81
	Botm.	7.68	7.45	—	—	—	—	5.45	1.20	—	—
S ‰	0	34.29	34.18	34.18	34.18	34.27	34.42	34.29	34.38	34.18	34.38
	10	34.27	34.16	34.16	34.20	34.27	34.36	34.29	34.29	34.40	34.52
	25	34.38	34.38	34.29	34.13	34.33	34.52	34.38	34.24	34.29	34.38
	50	34.20	33.96	34.18	34.13	34.40	34.51	34.20	34.16	34.25	34.29
	100	—	34.18	34.15	34.25	34.27	34.27	—	34.07	34.16	34.33
	150	—	—	34.22	34.13	34.33	34.27	—	—	34.04	34.07
	200	—	—	34.05	34.02	34.25	34.16	—	—	—	34.04
	300	—	—	34.27	34.09	34.02	34.27	—	—	—	34.00
	Botm.	34.16	34.25	—	—	—	—	34.15	34.15	—	—
Sounding (m)		100	198	—	—	—	—	98	196	—	—
Transp. (m)		—	—	—	—	—	—	7	9	13	
Color		—	—	—	—	—	—	4	3	3	
Wave		3	4	4	4	4	4	0	0	0	1
Swell		2	2	2	2	3	2	1	1	1	1
Air Temp. (°C)		6.5	6.6	6.7	6.8	6.5	6.5	12.0	11.6	10.0	10.0
Air Press. (mm)		768	768	769	769	769	769	768	768	768.5	768.5
Wind		SE. 1	SE. 1	SE. 1	SE. 1	W. 1	SE. 1	SE. 1	E. 1	SE. 1	SE. 1
Cloud		Ci. 3	St. 4	St. 5	Cc. 7	St. 5	St. 7	Cc. 9	Cc. 10	Cb. 10	Cb. 10
Weather		BC	BC	BC	BC	BC	BC	C	C	R	R

April 1962			③ June 1962					④ July 1962	
08	09	10	04	05	06	07	08	04	05
7	7	6	23	23	23	23	23	31	31
0405	0130	2305	2145	2025	1900	1730	1520	2030	1940
10. 40	10. 20	10. 00	17. 50	17. 50	18. 90	19. 20	18. 70	21. 50	23. 50
9. 80	9. 83	9. 38	16. 54	10. 88	17. 74	17. 88	18. 20	20. 24	19. 45
9. 63	9. 70	9. 30	11. 72	8. 55	14. 62	14. 58	15. 31	14. 27	14. 49
8. 30	9. 60	8. 80	7. 62	7. 11	10. 88	11. 56	9. 38	10. 30	10. 89
8. 25	9. 15	6. 00	—	7. 00	8. 19	8. 09	5. 31	—	7. 97
8. 20	7. 95	3. 13	—	4. 58	—	4. 35	2. 75	—	—
6. 95	6. 01	1. 08	—	—	—	2. 57	0. 88	—	—
1. 20	1. 00	0. 62	—	—	—	1. 51	0. 79	—	—
—	—	—	4. 84	2. 77	4b1	—	—	5. 72	3. 44
34. 29	34. 20	34. 25	34. 20	34. 04	33. 91	34. 27	34. 18	33. 64	33. 49
34. 22	34. 18	34. 29	34. 16	34. 16	34. 13	34. 27	34. 18	33. 71	33. 82
34. 24	34. 20	34. 18	34. 18	34. 13	34. 38	34. 47	34. 18	34. 25	34. 24
34. 38	34. 18	34. 20	34. 13	34. 13	34. 13	34. 22	34. 18	34. 27	34. 33
34. 42	34. 18	34. 18	—	34. 13	34 13	34. 13	34. 04	—	34. 24
34. 20	34. 29	33. 15	—	33. 96	—	33. 95	34. 02	—	—
34. 20	34. 13	34. 02	—	—	—	33. 95	33. 95	—	—
34. 04	34. 00	34. 13	—	—	—	33. 95	33. 95	—	—
—	—	—	34. 04	33. 95	34. 04	—	—	34. 09	34. 05
—	—	—	100	198	—	—	—	100	195
—	—	—	—	—	—	21	25	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	2	3	3	3	3	3	3
1	1	1	1	2	2	2	2	1	1
10. 3	10. 5	10. 7	17. 2	17. 5	17. 7	19. 1	21. 2	23. 0	24. 0
768. 5	770	770	758	758	758	758	758	757	757
SE. 1	SE. 1	SE. 1	NE. 1	NE. 1	NE. 1	NE. 1	SW. 1	S. 2	S. 2
9	—	—	St. 9	St. 9	St. 10	Cc. 9	Cs. 9	—	St. 2
R	BC	BC	C	C	R	C	C	B	B

Date		July 1962			⑤ November 1962				
Station Number		06	07	08	05	06	07	08	09
Day		31	31	31	18	18	18	18	18
Item	Time / Z(m)	1800	1540	1310	2338	2220	2100	1910	1720
T °C	0	23.80	24.00	24.00	15.90	16.00	16.00	16.50	16.70
	10	19.50	23.45	23.15	15.41	15.69	15.79	15.89	16.01
	25	—	—	15.80	14.78	15.48	15.30	15.37	15.45
	50	12.86	14.30	12.87	10.17	9.93	10.26	8.93	10.69
	100	6.47	8.62	6.64	3.46	3.76	3.08	3.43	3.86
	150	—	4.30	6.45	2.31	2.75	1.82	2.30	2.07
	200	—	2.32	1.47	—	1.58	1.13	1.31	1.39
	300	—	0.76	0.63	—	1.02	0.71	0.65	0.73
	400	—	0.44	0.46	—	—	—	—	—
	500	—	0.32	0.32	—	—	—	—	—
	Botm.	—	—	—	1.82	—	—	—	—
S ‰	0	33.46	33.73	33.96	33.22	33.22	33.15	33.15	33.19
	10	33.73	34.75	32.59	33.22	33.15	33.15	33.21	33.24
	25	34.18	33.91	33.68	33.24	33.17	33.19	33.19	33.15
	50	34.24	34.59	34.13	34.00	34.11	34.00	34.20	34.20
	100	34.05	34.25	34.15	34.02	33.96	33.12	33.95	33.95
	150	—	34.13	39.98	34.00	33.95	34.00	33.95	34.04
	200	—	34.00	33.96	—	—	33.96	34.00	33.96
	300	—	34.00	34.07	—	33.95	34.07	34.05	33.96
	400	—	34.02	34.07	—	—	—	—	—
	500	—	34.05	34.16	—	—	—	—	—
	Botm.	—	—	—	33.84	—	—	—	—
Sounding (m)		—	—	—	200	—	—	—	—
Transp. (m)		19.5	21.5	20.5	—	—	—	—	—
Color		—	—	—	—	—	—	—	—
Wave		4	4	3	4	4	4	4	4
Swell		1	1	2	2	2	2	2	2
Air Temp. (°C)		25.0	26.0	26.0	14.4	15.0	15.5	15.8	16.0
Air Press. (mm)		757	757.5	758	779	778	778	778	778
Wind		SSW. 2	SSW. 2	SSW. 1	N. 2	N. 1	N. 2	N. 2	N. 2
Cloud		St. 2	—	—	St. 4	Ci. 2	St. 4	St. 4	Ci. 4
Weather		B	B	B	BC	B	BC	BC	BC

G. 102선 해 양 관 측 성 적

Oceanographic Data, Line 102

Date		① March 1962					② April 1962				
Station Number		05	06	07	08	09	05	06	07	08	09
Day		1	1	1	1	1	5	5	6	6	6
Item	Time / Z(m)	0420	0535	0705	0850	1105	1145	1320	1100	1325	1615
T °C	0	10.10	10.10	10.00	9.90	9.80	9.70	9.90	11.20	11.70	12.30
	10	10.08	10.02	9.81	9.76	9.64	9.08	9.23	10.82	10.90	11.70
	25	9.95	9.85	9.65	9.50	9.55	9.03	9.15	10.22	10.21	11.18
	50	9.96	9.82	9.63	9.37	9.41	8.69	9.02	10.18	9.88	10.85
	100	—	9.13	9.56	8.44	5.82	5.50	5.47	9.21	3.95	9.92
	150	—	4.06	4.34	3.08	2.13	—	2.52	3.82	1.89	4.80
	200	—	3.07	1.37	1.21	0.88	—	1.48	1.90	1.21	1.32
	300	—	0.86	0.63	0.61	0.43	—	0.78	0.73	0.70	0.80
	Botm.	7.23	—	—	—	—	—	—	—	—	—
S ‰	0	34.63	34.27	34.29	34.36	34.27	34.36	34.38	34.47	34.47	34.56
	10	34.33	34.36	34.24	34.29	34.38	34.20	34.29	34.52	34.45	34.54
	25	34.33	34.27	34.34	34.27	34.39	34.36	34.25	34.40	34.36	34.52
	50	34.36	34.27	34.27	34.27	34.27	34.20	34.36	34.38	34.38	34.56
	100	—	34.29	34.25	34.25	34.31	34.07	34.09	34.45	34.16	34.45
	150	—	34.11	34.27	34.13	34.09	—	34.04	34.04	34.04	34.13
	200	—	34.18	34.11	34.18	34.09	—	34.14	34.13	34.13	34.13
	300	—	34.22	34.11	34.09	34.27	—	34.04	34.00	34.11	34.00
	Botm.	34.22	—	—	—	—	—	—	—	—	—
Sounding (m)		180	—	—	—	—	180	340	—	—	—
Transp. (m)		—	—	—	17	—	—	—	—	—	—
Color		—	—	—	3	—	3	3	2.5	3.5	3
Wave		4	4	4	4	4	3	4	1	2	1
Swell		3	3	3	3	3	1	2	1	1	1
Air Temp. (°C)		5.5	6.1	6.9	7.3	7.5	11.2	10.2	14.2	12.8	13.4
Air Press. (mm)		768	768	769	768	768	772	770	771.5	771	770
Wind		N. 1	N. 1	N. 1	N. 1	NW. 1	S. 1	S. 2	S. 1	S. 1	SE. 1
Cloud		Ci. 2	Ci. 4	Cs. 3	St. 8	Sc. 8	Ci. 1	—	Cc. 9	Cc. 9	Ci. 8
Weather		B	BC	BC	R	C	B	B	C	C	C

Date			③ June 1962					④ July 1962	
Station Number		10	04	05	06	07	08	04	05
Day		6	23	23	23	23	23	30	30
Item	Time / Z(m)	1850	0625	0720	0815	0947	1150	0915	0952
T °C	0	12.60	17.50	18.50	18.30	18.60	19.00	23.30	23.80
	10	11.52	16.38	18.25	18.12	18.22	18.22	22.13	22.97
	25	11.32	15.40	17.16	15.16	16.42	16.06	15.10	15.30
	50	11.14	9.45	12.98	13.49	13.28	15.81	—	12.22
	100	9.10	—	6.81	8.02	8.09	9.62	—	8.28
	150	2.62	—	3.72	2.95	3.03	5.91	—	—
	200	1.06	—	—	1.31	1.00	1.69	—	—
	300	0.69	—	—	0.82	0.83	0.85	—	—
	400	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—
	Botm.	—	8.71	1.54	—	—	—	13.09	5.83
S ‰	0	34.63	34.09	34.16	34.13	34.16	34.16	33.33	34.13
	10	—	34.13	34.13	34.16	34.16	34.20	33.55	34.39
	25	34.54	34.18	34.15	34.38	34.20	34.29	—	34.20
	50	34.65	34.18	34.20	34.38	34.29	34.29	—	33.71
	100	34.29	—	34.04	34.20	34.07	34.13	—	34.05
	150	33.86	—	33.95	33.95	33.95	34.04	—	—
	200	34.13	—	—	33.95	—	33.93	—	—
	300	34.04	—	—	33.95	33.95	33.95	—	—
	400	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—
	Botm.	—	34.13	34.04	—	—	—	34.02	34.29
Sounding (m)		—	58	182	—	—	—	58	180
Transp. (m)		—	15	24	26	26	25	18	18.5
Color		—	—	—	—	—	—	—	—
Wave		1	2	3	3	3	3	4	5
Swell		1	1	1	1	1	1	1	1
Air Temp. (°C)		12.0	17.5	17.5	17.3	18.3	20.0	24.5	25.0
Air Press. (mm)		770	758	758	758	759	759	757	757
Wind		SE. 1	SW. 1	SW. 1	SW. 1	SW. 1	SW. 1	SSE. 2	SSE. 2
Cloud		Sc. 7	St. 9	St. 9	Sc. 9	St. 9	St. 9	St. 5	St. 6
Weather		BC	C	C	C	C	C	BC	BC

July 1962				⑤ October 1962					
06	07	08	S1 36°18′ 130°18′	05	06	07	08	09	10
31	31	31	31	8	8	8	8	8	8
0335	0535	0840	1055	1350	1440	1555	1742	1955	2149
21.80	22.80	22.50	23.50	21.70	21.50	21.60	20.50	20.10	21.30
21.82	22.90	21.30	23.18	20.67	19.59	19.75	19.65	19.23	20.65
—	13.10	13.49	16.06	16.05	19.24	19.64	18.92	17.12	18.72
10.52	8.80	10.65	10.58	6.64	11.52	9.38	10.18	7.94	12.42
5.44	4.16	4.46	3.80	—	3.19	3.16	4.44	4.07	4.95
2.99	2.15	2.13	2.20	—	1.82	2.11	1.89	2.10	1.94
1.67	0.90	1.12	1.33	—	1.26	1.26	1.02	1.14	1.10
0.51	0.89	0.59	0.60	—	0.83	0.78	0.50	0.55	0.51
0.30	0.69	—	0.35	—	—	—	—	—	—
—	—	0.22	—	—	—	—	—	—	—
—	—	—	—	2.84	—	—	—	—	—
33.59	33.96	33.91	33.39	32.09	31.80	31.91	32.59	32.65	32.56
33.59	33.78	33.68	33.46	31.82	32.00	32.61	32.59	32.92	32.56
34.24	34.16	34.11	33.98	33.13	32.56	34.05	33.59	33.50	34.13
34.25	34.25	34.18	34.19	33.96	34.16	32.65	33.64	33.97	33.95
34.07	34.16	33.98	34.02	—	34.00	33.96	33.80	33.50	33.80
34.24	34.00	34.00	33.75	—	34.02	34.07	33.95	33.78	33.86
34.29	34.70	34.00	34.02	—	34.04	34.04	33.95	33.78	33.86
34.02	34.05	33.93	33.98	—	34.05	34.07	33.95	33.86	33.89
34.00	33.95	34.07	34.02	—	—	—	—	—	—
—	—	34.02	—	—	—	—	—	—	—
—	—	—	—	34.00	—	—	—	—	—
475	—	—	—	182	—	—	—	—	—
—	—	19.0	19.5	19	19	17	—	—	—
—	—	—	—	3	3	3	—	—	—
4	2	3	3	2	2	2	2	2	2
1	1	2	1	1	1	1	1	1	1
23.5	23.5	24.8	25.6	25.4	24.9	27.0	24.0	21.2	20.0
757	758	758	759	772	772	772	771	772	771
SW. 2	SW. 1	SSW. 1	SSW. 1	SE. 1	E. 1	SE. 1	S. 1	S. 1	S. 1
—	Sc. 5	St. 1	—	St. 8	Cs. 7	Cs. 6	Cs. 8	9	10
B	BC	B	B	C	BC	BC	C	C	C

Date		⑥ November 1962						
Station Number		04	05	06	07	08	09	10
Day		14	14	14	14	14	14	14
Item	Time / Z(m)	1250	1330	0925	1040	1230	1415	0030
T °C	0	18.10	18.10	16.80	17.00	18.00	18.50	15.80
	10	17.20	17.42	16.80	16.37	16.90	18.18	15.36
	25	14.80	17.15	16.50	15.60	16.38	17.98	15.36
	50	—	8.69	13.60	14.89	14.24	14.88	8.86
	100	—	2.98	3.91	4.44	3.82	4.40	—
	150	—	—	2.20	4.66	2.16	1.22	—
	200	—	—	1.25	3.35	1.23	1.23	—
	300	—	—	0.92	1.25	0.75	0.71	—
	Botm.	5.21	2.71	—	—	—	—	—
S ‰	0	33.04	32.97	33.17	33.31	33.67	33.60	—
	10	33.04	32.95	33.08	33.19	33.57	33.64	—
	25	33.46	33.50	33.17	33.24	33.86	33.64	—
	50	—	33.98	33.84	34.38	34.38	34.04	—
	100	—	33.95	33.87	33.87	34.04	33.93	—
	150	—	—	34.07	34.47	33.91	33.82	—
	200	—	—	34.02	33.87	34.04	34.04	—
	300	—	—	34.04	—	34.04	34.04	—
	Botm.	34.04	33.95	—	—	—	—	—
Sounding (m)		60	180	—	—	—	—	—
Transp. (m)		11	15	15	18	18	19	—
Color		—	—	—	—	—	—	—
Wave		3	3	5	5	5	6	4
Swell		1	1	2	2	2	2	2
Air Temp. (°C)		20.0	20.1	18.0	18.3	18.6	18.0	14.0
Air Press. (mm)		772	772	777	775	775	776	779
Wind		E. 1	E. 1	W. 3	N. 3	N. 3	N. 3	N. 3
Cloud		Ci. 8	St. 8	St. 4	St. 7	St. 5	Ci. 4	Ci. 3
Weather		C	C	BC	BC	BC	BC	BC

남 해 해 양 조 사 성 적

OCEANOGRAPHIC OBSERVATIONS

SOUTHERN WATERS

1 9 6 2

A. 209선 해 양 관 측 성 적

Oceanographic Data, Line 209

Date		① February 25~March 1, 1962					② March 31~April 1, 1962				
Station Number		04	05	06	07	08	04	05	06	07	08
Day		1	1	28	28	28	1	1	1	1	31
Item	Time / Z(m)	0135	0040	2240	2025	1815	0435	0340	0145	0007	2210
T °C	0	10.30	11.30	12.00	12.50	11.40	12.37	12.35	11.84	11.33	12.27
	10	10.32	11.22	11.75	12.46	11.35	12.37	12.42	12.49	12.52	11.14
	25	10.21	10.62	11.56	12.21	11.20	12.35	12.46	12.42	12.46	9.57
	50	10.14	10.58	11.05	12.08	11.13	11.72	11.72	12.30	12.43	9.59
	100	—	7.04	8.79	11.62	10.12	—	10.00	11.72	12.20	9.24
	150	—	3.84	4.85	7.50	5.15	—	3.03	—	—	—
	200	—	—	1.84	2.50	—	—	—	2.39	2.92	—
	300	—	—	—	—	—	—	—	—	—	—
	Botm.	8.47	3.26	—	—	—	5.33	2.62	—	—	—
S ‰	0	34.36	34.69	34.63	34.63	34.70	34.74	34.49	34.58	34.70	34.58
	10	34.36	34.52	34.58	34.72	34.70	34.63	34.70	34.60	34.63	34.70
	25	34.45	34.51	34.70	34.63	34.54	34.61	34.58	34.69	34.67	34.31
	50	34.34	34.63	34.54	34.63	34.61	34.69	34.49	34.61	34.65	34.34
	100	—	34.25	34.36	34.63	34.36	—	34.15	34.58	34.58	34.31
	150	—	33.98	34.27	34.34	34.24	—	34.13	—	—	—
	200	—	—	34.09	34.09	—	—	—	34.18	34.00	—
	300	—	—	—	—	—	—	—	—	—	—
	Botm.	34.29	34.29	—	—	—	34.18	34.13	—	—	—
Scunding (m)		68	160	—	—	—	65	162	—	—	—
Transp. (m)		—	—	—	—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—	—	—	—
Wave		4	4	4	4	4	4	5	4	5	4
Swell		2	2	2	3	3	2	3	2	3	2
Air Temp. (°C)		7.0	7.0	7.6	6.8	6.0	9.7	9.8	9.7	9.8	10.0
Air Press. (mm)		769	768	769	770	771	769	769	769	769	769.2
Wind		NW. 1	NW. 1	N. 1	N. 1	N. 1	SSW. 2	SSW. 2	SSW. 2	SSW. 2	SSW. 2
Cloud		St. 2	St. 3	Ci. 5	Ci. 3	St. 3	St. 4	St. 3	St. 3	St. 4	St. 3
Weather		B	BC	BC	BC	BC	BC	BC	BC	BC	BC

Date		③ June 1962					
Station Number		09	04	05	06	07	08
Day		31	19	18	18	18	18
Item	Time / Z(m)	2015	0025	2325	2120	1920	1720
T °C	0	12.20	15.50	16.50	17.20	18.20	18.80
	10	12.49	15.02	14.57	16.92	16.22	18.73
	25	12.56	10.93	11.79	13.52	13.92	16.39
	50	12.26	—	9.08	9.28	13.19	13.87
	100	12.04	—	6.91	5.75	6.01	9.35
	150	—	—	—	1.67	1.38	3.59
	200	6.75	—	—	1.20	0.79	—
	300	0.89	—	—	—	—	—
	Botm.	—	8.38	4.12	0.98	0.88	2.91
S ‰	0	34.74	34.13	34.04	34.04	33.96	33.93
	10	34.67	34.13	34.04	34.04	34.04	33.78
	25	34.58	34.18	34.24	34.20	34.29	33.95
	50	34.72	—	34.15	34.13	34.27	34.29
	100	34.61	—	34.04	33.98	34.13	34.18
	150	—	—	—	33.86	33.89	33.95
	200	—	~~33.97~~	—	34.18	33.89	—
	300	—	~~34.06~~	—	—	—	—
	Botm.	—	34.13	34.02	34.09	33.89	33.95
Sounding (m)		—	68	156	220	260	186
Transp. (m)		—	—	—	—	—	15
Color		—	—	—	—	—	—
Wave		2	4	5	5	5	5
Swell		1	1	2	2	2	2
Air Temp. (°C)		10.9	16.5	16.8	17.1	18.0	19.0
Air Press. (mm)		769	759	758	759	758	759
Wind		SW. 1	N. 2	N. 2	N. 2	N. 3	NE. 3
Cloud		0	St. 5	Ci. 5	Ci. 5	St. 4	St. 5
Weather		B	BC	BC	BC	BC	BC

④ July 28～August 10, 1962					⑤ October	
04	05	06	07	08	04	05
10	10	10	10	28	8	8
0424	0520	0650	0840	1600	0530	0420
17. 20	15. 00	17. 20	19. 00	24. 00	21. 10	21. 10
14. 89	14. 33	17. 00	18. 70	23. 99	20. 67	20. 73
13. 60	14. 20	16. 00	34. 78	18. 73	20. 25	18. 79
—	11. 64	11. 05	11. 80	14. 26	8. 69	11. 69
—	7. 30	4. 59	4. 82	13. 01	—	2. 59
—	—	2. 60	2. 40	9. 66	—	—
—	—	1. 97	1. 39	—	—	—
—	—	—	—	—	—	—
11. 19	3. 65	—	0. 76	1. 58	3. 48	1. 29
33. 69	34. 70	34. 12	33. 62	31. 82	31. 76	31. 67
34. 36	34. 07	33. 89	33. 68	31. 89	31. 80	31. 73
34. 16	34. 00	34. 05	33. 95	33. 13	32. 25	32. 30
—	34. 16	34. 15	34. 10	33. 82	33. 86	34. 42
—	34. 18	33. 95	33. 93	34. 16	—	34. 02
—	—	33. 87	33. 89	34. 18	—	—
—	—	33. 86	33. 95	34. 13	—	—
—	—	—	—	—	—	—
34. 20	33. 98	—	33. 95	33. 98	34. 05	34. 04
65	155	220	258	184	70	152
—	—	—	—	21. 0	—	—
—	—	—	—	—	—	—
2	2	1	1	6	3	3
1	1	1	1	1	1	1
21. 6	19. 7	19. 6	20. 5	25. 2	19. 0	19. 2
756. 3	756. 5	757	757	756	773	773
SW. 1	SW. 1	SW. 1	SW. 1	SW. 2	N. 1	NW. 1
—	St. 2	St. 2	Sc. 1	Sc. 3	Ci. 7	Ci. 8
B	B	B	B	BC	BC	C

Date		October 1962				⑥ November 1962				
Station Number		06	07	08	09	04	05	06	07	08
Day		8	8	7	7	13	13	13	13	13
Item	Time / Z(m)	0250	0120	2305	2110	2345	2250	2120	2011	1805
T °C	0	21.40	22.10	21.60	23.10	17.90	18.00	18.00	18.10	21.10
	10	19.87	20.99	21.10	22.75	17.37	17.60	17.66	17.28	20.69
	25	20.67	21.57	23.38	22.71	16.06	17.51	17.18	16.85	20.70
	50	11.51	21.50	17.75	20.88	—	6.08	12.97	14.49	20.66
	100	2.65	9.08	15.14	15.09	—	2.65	2.06	3.13	16.60
	150	1.77	2.04	2.97	6.79	—	—	1.98	2.15	1.75
	200	1.72	1.17	—	—	—	—	—	1.35	—
	300	—	—	—	—	—	—	—	—	—
	Botm.	—	—	—	0.54	9.16	2.02	1.75	0.95	1.28
S ‰	0	31.73	31.91	31.92	32.59	33.15	—	33.06	32.97	33.95
	10	31.80	31.82	31.76	32.61	33.12	33.12	33.04	32.97	33.93
	25	31.85	31.80	33.17	32.90	33.77	33.17	33.06	32.97	33.86
	50	34.33	31.80	34.52	34.51	—	34.04	34.38	33.86	33.95
	100	34.09	34.24	34.51	34.20	—	33.96	34.04	33.91	34.40
	150	34.05	34.04	34.09	34.11	—	—	33.93	33.91	34.00
	200	34.11	34.05	—	—	—	—	—	34.04	—
	300	—	—	—	—	—	—	—	—	—
	Botm.	—	—	—	31.84	34.04	33.68	34.00	34.04	34.02
Sounding (m)		220	260	185	160	55	129	207	256	190
Transp. (m)		—	—	—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—	—	—
Wave		3	3	3	3	3	3	3	4	4
Swell		1	1	1	1	1	1	2	2	2
Air Temp. (°C)		20.0	20.0	20.0	20.0	18.5	19.0	19.0	19.5	21.0
Air Press. (mm)		773	773	773	773	775	775	775.5	775.5	776
Wind		NW. 1	NW. 1	NW. 1	NE. 1	NE. 1	NE. 1	NE. 1	NE. 2	E. 2
Cloud		Ci	Ci. 4	St. 5	8	Ci. 7	St. 7	Ci. 5	Ci. 6	Ci. 7
Weather		C	BC	BC	C	BC	BC	BC	BC	BC

B. 208선 해 양 관 측 성 적

Oceanographic Data, Line 208

Date		① January 31 ~ February 1, 1962					③ February 1962				
Station Number		01	02	03	04	05	01	02	03	04	05
Day		31	31	1	1	1	25	25	28	28	28
Item	Time / Z(m)	0735	0825	0810	0945	1120	0705	0812	1030	1150	1310
T °C	0	11.70	13.00	13.25	14.20	14.40	12.20	12.60	13.10	12.50	12.80
	10	11.73	—	13.01	14.01	14.24	12.00	12.54	13.15	12.54	12.66
	25	11.43	12.96	13.01	14.00	14.22	11.93	12.39	12.89	12.23	12.54
	50	11.05	12.97	13.00	13.60	14.16	11.76	12.40	12.83	12.09	12.45
	100	—	12.92	11.94	13.17	14.12	—	12.31	12.42	11.91	12.39
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—
	Botm.	10.96	11.93	7.97	9.18	13.91	11.68	12.26	12.13	10.26	12.06
S ‰	0	34.27	34.27	34.33	34.40	34.38	34.63	34.70	34.79	34.70	34.76
	10	34.33	34.27	34.27	34.36	34.38	34.54	34.63	34.76	34.67	34.63
	25	34.27	34.27	34.29	34.36	34.36	34.70	34.63	34.67	34.67	34.63
	50	34.27	34.27	34.63	34.31	34.36	34.54	34.70	34.72	34.69	34.72
	100	—	34.27	34.22	34.27	34.42	—	34.63	34.63	34.54	34.63
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—
	Botm.	34.24	34.13	34.09	34.15	34.36	34.54	34.63	34.63	34.36	34.61
Sounding (m)		72	127	142	145	125	73	122	145	153	139
Transp. (m)		5	9	14	12	18	7	8	15.5	16	16
Color		4	4	3	4	4	3	4	4	4	4
Wave		3	4	2	2	2	4	5	4	4	4
Swell		1	1	1	1	2	3	3	3	2	3
Air Temp. (°C)		0.6	2.0	4.5	10	9.5	8.2	8.5	6.2	8.0	6.8
Air Press. (mm)		772	773	777	767	767	769	770	771	772	772
Wind		N/W. 1	NW. 2	N/W. 1	N. 1	NW. 1	N. 2	N. 2	N. 1	N. 1	N. 1
Cloud		Cb. 1	Cb. 2	St. 2	St. 2	St. 2	St. 5	Cs. 8	Ci. 6	Ci. 6	Cs. 5
Weather		B	B	B	B	B	BC	C	BC	BC	BC

Date		③ March 1962								
Station Number	06	01	02	03	04	05	06	07	S_1 35°02′ 130°25′	S_2 35°20 130°31
Day	28	31	31	31	31	31	31	31	31	31
Item Time / Z(m)	1422	0645	0745	0900	1050	1200	1320	1510	1700	1832
T °C 0	12.90	12.43	12.94	13.23	13.71	13.75	14.12	13.63	13.32	12.94
10	12.71	12.46	12.91	13.18	13.59	13.46	14.74	14.67	13.02	12.88
25	12.46	13.84	12.94	14.53	14.89	13.42	12.99	13.27	12.97	12.57
50	12.48	11.58	12.08	13.15	13.37	13.38	12.61	13.25	12.78	12.27
100	11.84	—	9.93	11.85	13.02	13.40	11.95	13.23	12.10	12.17
150	—	—	—	—	—	—	—	—	—	—
200	—	—	—	—	—	—	—	—	—	—
300	—	—	—	—	—	—	—	—	—	—
Botm.	10.65	9.65	9.90	11.32	12.41	13.33	11.86	13.23	10.00	7.03
S ‰ 0	34.72	34.52	34.72	34.67	34.74	34.79	34.74	34.61	34.74	34.74
10	34.65	34.63	34.58	34.60	34.61	34.70	34.58	34.61	34.63	34.65
25	34.63	34.81	34.58	34.56	34.60	34.60	34.65	34.72	34.67	34.63
50	34.65	34.51	34.60	34.52	34.65	34.74	34.74	34.72	34.74	34.74
100	34.54	—	34.40	34.52	34.54	34.58	34.61	34.67	34.58	34.60
150	—	—	—	—	—	—	—	—	—	—
200	—	—	—	—	—	—	—	—	—	—
300	—	—	—	—	—	—	—	—	—	—
Botm.	34.42	34.24	34.51	34.49	34.58	34.60	34.61	34.67	34.49	34.31
Sounding (m)	128	72	124	145	142	133	127	132	127	168
Transp. (m)	16	13	14.5	17	19	17	20	22	16	18
Color	4	—	—	—	—	—	—	—	—	—
Wave	4	2	2	2	2	2	2	1	1	2
Swell	3	1	1	1	1	1	1	1	1	1
Air Temp. (°C)	7.5	7.8	10.0	9.5	10.0	10.2	11.3	12.2	11.0	10.3
Air Press. (mm)	771	769	770	770.3	770	770.5	770	769.5	769	769.3
Wind	N. 1	NW. 1	NW. 1	W/S. 1	S/W. 1	S. 1	S. 1	S. 1	S. 1	S. 1
Cloud	St. 5	0	St. 1	St. 3	St. 1	0	St. 1	0	0	0
Weather	BC	B	B	BC	B	B	B	B	B	B

④ May 1962							
01	02	03	04	05	06	S_1 35°01′ 129°54′	S_2 35°02′ 129°41′
18	18	18	18	18	18	18	18
0545	0655	0815	0940	1058	1220	1420	1529
14.10	16.00	16.60	17.20	17.40	16.70	17.60	17.40
12.81	15.25	16.29	16.87	16.94	16.27	17.07	17.03
10.90	13.92	16.14	16.78	16.97	15.82	16.92	16.71
7.23	13.36	14.49	15.58	16.41	14.76	16.60	15.90
—	5.20	13.59	14.09	14.20	14.21	14.96	14.72
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
5.20	2.42	4.10	12.67	13.61	13.90	14.51	12.41
34.49	34.38	34.47	34.54	34.60	34.54	34.72	34.56
34.49	34.47	34.51	34.54	34.56	—	34.56	34.49
34.49	34.42	34.47	34.47	34.56	34.47	34.07	34.60
34.45	34.34	34.47	34.56	34.56	—	34.56	34.56
—	34.20	34.47	34.47	34.51	34.63	34.56	34.56
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
34.36	34.11	34.15	34.56	34.56	34.03	34.63	34.51
68	121	146	133	146	124	135	160
4	9	13	13	13	15	13	12
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
1	1	1	1	1	1	2	2
14.1	16.0	17.5	18.0	18.0	17.9	18.4	17.5
761	762	762	762	762	761.5	761.5	761.5
N. 1	W/N 1	W. 1	WSW. 1	W. 1	W. 1	S. 2	SW. 2
Sc. 10	Sc. 10	Sc. 10	Sc. 10	Sc. 10	Cc. 9	Ci. 3	Ci. 4
C	C	C	C	C	C	BC	BC

Date		⑤ June 1962					
Station Number		01	02	03	04	05	06
Day		18	18	18	18	18	18
Item	Time / Z(m)	0540	0625	0743	0950	1035	1200
T °C	0	14.00	15.70	19.20	19.20	19.80	20.50
	10	13.58	13.98	16.82	18.41	19.65	20.52
	25	9.93	13.57	14.59	17.45	19.57	17.58
	50	7.75	12.75	14.09	14.75	16.94	15.85
	100	—	6.91	12.95	14.25	14.93	14.78
	150	—	—	—	—	—	—
	200	—	—	—	—	—	—
	300	—	—	—	—	—	—
	Botm.	7.18	6.18	6.81	12.61	14.81	14.68
S ‰	0	34.20	34.04	33.86	33.42	33.55	33.48
	10	34.20	34.20	33.95	33.84	33.55	33.71
	25	34.56	34.20	34.20	34.20	33.55	34.13
	50	34.20	34.20	34.38	34.20	34.04	34.47
	100	—	34.13	34.20	34.38	34.40	34.45
	150	—	—	—	—	—	—
	200	—	—	—	—	—	—
	300	—	—	—	—	—	—
	Botm.	34.13	34.04	34.13	34.65	34.38	34.47
Sounding (m)		73	112	142	141	140	124
Transp. (m)		9	5	—	—	17	—
Color		—	—	—	—	—	—
Wave		1	2	2	3	3	3
Swell		1	1	1	1	1	1
Air Temp. (°C)		16.4	16.5	—	20.0	20.6	20.5
Air Press. (mm)		758	758	757	758	768	758
Wind		S. 2	S. 2	S. 2	W. 2	W. 2	N. 3
Cloud		Ci. 5	St. 7	St. 5	Ci. 4	Ci. 4	St. 5
Weather		BC	BC	BC	BC	BC	BC

⑧ July 1962					
01	02	03	04	05	06
28	28	28	28	28	28
0615	0725	0905	1040	1270	1410
22. 60	22. 30	23. 50	24. 30	23. 70	23. 80
22. 07	22. 27	23. 40	23. 33	23. 51	23. 69
19. 07	15. 44	16. 59	18. 12	20. 17	19. 69
12. 33	12. 34	14. 05	14. 38	15. 12	14. 05
—	5. 45	9. 77	14. 29	14. 38	14. 31
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
9. 26	4. 86	4. 84	7. 47	11. 17	8. 07
32. 99	33. 77	31. 37	32. 09	32. 14	32. 20
34. 12	33. 77	31. 38	32. 70	32. 14	32. 18
33. 86	34. 13	33. 24	32. 34	32. 61	33. 43
34. 18	34. 25	34. 12	33. 57	33. 59	32. 90
—	34. 05	34. 16	34. 18	34. 33	34. 05
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	-
34. 20	34. 04	34. 04	34. 04	34. 20	34. 13
70	125	145	150	135	160
18. 5	11. 0	17. 5	18. 0	17	21
—	—	—	—	—	—
3	3	3	3	3	3
1	1	1	1	1	1
22. 0	21. 9	23. 2	24. 8	25. 0	25. 1
756	756	755	756	756	756
W. 1	W. 1	WSW. 2	SW. 2	SW. 2	SW. 2
—	—	—	St. 10	St. 10	Cs. 2
B	B	B	C	C	B

Date		⑦ October 1962						
Station Number		01	02	03	04	05	06	07
Day		6	6	7	7	7	7	7
Item	Time / Z(m)	0742	0845	1250	1415	1510	1618	1750
T °C	0	21.10	21.00	23.10	24.60	25.10	25.10	25.10
	10	20.75	20.84	23.23	24.08	25.09	24.74	24.08
	25	20.65	20.05	24.27	23.76	25.15	24.68	24.69
	50	7.27	10.48	14.79	18.44	21.47	22.76	22.12
	100	—	5.20	8.86	15.20	15.83	17.25	17.11
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	5.94	4.74	3.28	2.27	8.23	15.98	16.52
S ‰	0	31.78	31.69	32.54	33.40	34.02	33.69	33.95
	10	31.60	31.71	32.61	33.40	34.02	33.78	33.93
	25	31.54	31.82	33.42	33.42	33.96	33.59	33.89
	50	33.96	34.20	—	33.68	34.13	34.22	34.20
	100	—	34.02	34.22	34.45	34.52	35.14	34.61
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	34.11	33.98	34.00	34.47	34.31	34.56	34.61
Sounding (m)		68	119	142	150	137	130	132
Transp. (m)		8	9	22	20	22	19	—
Color		4	—	3	3	3	—	—
Wave		4	5	3	2	2	3	2
Swell		1	2	1	1	1	1	1
Air Temp. (°C)		16.0	17.0	21.0	22.0	22.1	21.9	21.9
Air Press. (mm)		773	772	773	773	773	773	772.5
Wind		NE. 2	NE. 2	NW. 1	E. 1	E. 1	E. 1	E. 1
Cloud		St. 4	St. 4	St. 2	St. 3	St. 4	Cc. 8	Cc. 8
Weather		BC	BC	B	BC	BC	C	C

	⑧ November 1962					⑨ December 1962				
01	02	03	04	05	06	01	02	03	04	05
13	13	13	13	13	13	29	31	31	31	31
0625	0745	1000	1115	1233	1345	1030	0830	0950	1100	1214
16.50	16.90	21.00	21.00	20.00	20.10	15.20	16.30	16.50	16.40	16.50
16.35	16.65	21.35	20.88	19.90	19.53	15.02	14.37	15.40	14.42	14.39
14.02	16.75	21.22	20.77	19.73	19.51	15.02	15.68	16.44	16.12	16.14
11.31	15.25	21.21	20.77	19.71	19.80	14.34	15.65	16.46	16.27	16.54
—	3.55	15.47	17.85	18.85	18.25	—	6.23	16.53	16.43	16.57
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
7.01	3.31	4.58	3.88	10.75	16.55	11.26	6.25	11.25	13.81	13.65
33.21	33.04	34.11	34.00	33.66	33 68	34.56	34.63	34.61	34.58	34.67
33.26	33.04	34.16	34.02	33.66	33.50	34.56	34.65	34.70	34.51	34.69
33.66	33.04	34.09	34.04	33.64	33.57	34.40	34.65	34.63	34.58	34.63
34.09	34.18	34.09	34.09	33.73	33.80	34.36	34.58	34.65	34.63	34.67
—	34.04	34.25	34.36	34.09	34.22	—	34.15	34.65	34.58	34.74
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
34.09	34.00	34.25	34.04	34.27	34.47	34.40	34.38	34.38	34.63	34.76
74	120	150	157	142	140	76	126	132	146	148
—	12	15	17	17	17	10	13	15	14	14
—	—	—	—	—	—	—	—	—	—	—
2	3	3	3	3	3	6	5	6	6	7
1	1	1	1	1	1	2	2	2	2	2
11.0	12.0	19.0	21.0	22.0	22.1	12.1	0.5	0.3	0.3	0.4
776	776	777.5	777.5	777	777	771	770	770	770	770
W. 2	W. 2	W. 2	W. 2	W. 2	E. 1	NE. 3	NW. 2	NW. 2	N V. 2	NW. 2
Ci. 4	St. 4	St. 5	Ci. 4	St. 4	St. 3	Ci. 10	St. 5	St. 5	St. 5	St. 5
BC	BC	BC	BC	BC	BC	C	BC	BC	BC	BC

C. 207선 해 양 관 측 성 적

Oceanographic Data, Line 207

Date		① January 1962					② March 1962				
Station Number		01	02	03	04	05	01	02	03	04	05
Day		29	29	29	29	29	5	5	5	5	5
Item	Time / Z(m)	0945	1050	1810	1855	1930	1620	1520	1423	1320	1245
T °C	0	13.40	13.40	13.50	13.50	13.60	12.40	12.60	13.40	14.50	14.40
	10	13.27	13.21	—	—	13.47	11.96	12.27	12.49	14.28	14.25
	25	13.29	13.24	13.36	13.69	13.46	11.82	12.15	12.23	14.14	13.97
	50	13.27	13.14	13.25	13.53	13.46	11.45	11.91	11.92	13.91	13.65
	100	—	—	12.88	13.66	—	—	—	11.54	12.50	12.56
	150	—	—	—	12.64	—	—	—	—	11.80	—
	200	—	—	—	—	—	—	—	—	11.32	—
	300	—	—	—	—	—	—	—	—	—	—
	Botm.	12.61	8.52	12.69	8.40	13.38	11.39	11.85	11.42	11.19	11.68
S ‰	0	34.36	34.27	34.27	34.33	34.27	34.56	34.54	34.47	34.70	34.74
	10	34.27	34.27	34.27	—	34.27	34.47	34.52	34.54	34.74	34.61
	25	34.36	34.27	34.27	34.29	34.27	34.42	34.63	34.65	34.69	34.56
	50	34.54	34.27	34.27	34.27	34.29	34.58	34.47	34.52	34.60	34.74
	100	—	—	34.27	34.28	—	—	—	34.45	34.47	34.63
	150	—	—	—	34.18	—	—	—	—	34.38	—
	200	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—
	Botm.	34.25	34.18	34.25	34.02	34.27	34.42	34.51	34.54	34.58	34.47
Sounding (m)		82	110	140	228	110	85	102	129	223	158
Transp. (m)		10	10	9	—	—	11	11	11	18	17.5
Color		3	3	3	—	—	—	—	—	—	—
Wave		2	4	4	3	3	2	2	2	2	2
Swell		1	1	1	1	1	1	1	1	1	1
Air Temp. (°C)		5.0	6.5	5.5	7.0	7.0	12.5	13.3	12.8	13.5	13.8
Air Press. (mm)		768	763	765	766	767	766	768	767.5	763	767
Wind		NW. 1	W. 2	W. 2	W. 2	W. 2	NW. 1	NW. 1	NW. 1	NW. 1	NW. 1
Cloud		Sc. 8	Sc. 3	Cu. 2	Cu. 2	Cu. 3	Ci. 8	Cs. 7	St. 6	St. 7	Ci. 8
Weather		C	BC	B	B	BC	C	BC	BC	BC	C

③ April 1962

01	02	03	04	05	S_1 34°59′ 129°25′	S_2 35°09′ 129°26′	S_3 35°18′ 129°27′
5	5	5	5	5	5	5	5
1425	1340	1245	1145	1110	0940	0810	0700
11.90	12.32	12.72	13.46	14.10	11.35	12.23	11.45
11.60	12.06	12.39	13.98	13.72	12.78	12.24	11.47
11.60	12.00	12.27	14.02	13.95	12.58	12.25	11.46
11.50	11.87	11.71	13.96	13.94	12.70	11.70	11.40
—	—	11.28	13.92	13.94	11.80	—	—
—	—	—	12.97	—	—	—	—
—	—	—	11.82	—	—	—	—
—	—	—	—	—	—	—	—
11.50	11.83	11.28	11.59	13.59	11.80	11.57	9.80
34.49	34.58	34.58	34.72	34.65	34.65	34.54	34.52
34.45	34.56	34.61	34.58	34.65	34.67	34.54	34.54
34.56	34.61	34.56	34.58	34.67	34.58	34.58	34.54
34.40	34.58	34.60	34.61	34.72	34.60	34.58	34.49
—	—	34.58	34.58	34.58	34.58	—	—
—	—	—	34.65	—	—	—	—
—	—	—	34.76	—	—	—	—
—	—	—	—	—	—	—	—
34.40	34.65	34.49	34.56	34.61	34.58	34.54	34.47
78	100	125	230	152	136	108	78
7	11	14	19	13	14	13	7
—	—	—	—	—	—	—	—
2	2	2	2	3	2	3	2
1	1	1	1	1	1	1	1
11.8	11.2	10.2	10.0	9.7	8.9	8.3	7.2
771	771	770.8	771	771	771	770	770
WSW. 1	W. 1	W. 1	W. 1	W. 1	WSW. 1	WNW. 1	SW. 1
0	0	0	0	0	0	0	0
B	B	B	B	B	B	B	B

Date		④ May 1962					⑤ June		
Station Number		01	02	03	04	05	01	02	03
Day		17	17	17	17	17	17	17	17
Item	Time / Z(m)	0720	0810	0850	0950	1025	0700	0740	0840
T °C	0	15.25	15.30	16.20	17.20	17.40	18.20	19.40	19.80
	10	14.23	14.98	16.00	16.71	16.83	15.52	18.71	19.23
	25	13.02	14.80	14.93	16.04	16.24	14.44	15.41	15.47
	50	12.84	12.90	13.65	15.03	15.27	13.01	13.62	14.28
	100	—	—	12.88	13.73	14.30	—	—	13.65
	150	—	—	—	12.86	—	—	—	—
	200	—	—	—	8.24	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	10.72	12.80	11.20	8.05	13.50	8.33	9.21	6.53
S ‰	0	34.29	34.56	34.56	34.74	34.63	33.95	33.77	33.04
	10	34.58	34.58	34.56	34.70	34.63	34.24	33.77	33.26
	25	34.63	34.61	34.01	34.61	34.63	34.13	34.13	33.77
	50	34.67	34.61	34.63	34.63	34.63	34.29	34.29	34.13
	100	—	—	34.58	34.58	34.63	—	—	34.29
	150	—	—	—	34.47	—	—	—	—
	200	—	—	—	34.47	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	34.56	34.63	34.61	—	34.56	34.20	34.36	34.22
Sounding (m)		80	93	119	224	146	84	104	140
Transp. (m)		7	9	13	14	14	9	15	18
Color		—	—	—	—	—	—	—	—
Wave		1	2	2	2	2	1	1	1
Swell		1	1	1	1	1	1	1	1
Air Temp. (°C)		17.0	16.5	18.0	17.5	17.8	19.5	21	21.1
Air Press. (mm)		762	762	763	763	763	762	762	762
Wind		E. 1	E. 1	E. 1	E/N. 1	E/N. 1	N. 1	N. 1	N. 1
Cloud		St. 9	Cs. 2	Cs. 3	St. 4	Cs. 3	St. 4	St. 4	Cs. 5
Weather		C	B	BC	BC	BC	BC	BC	BC

1962				⑥ July 1962							
04	05	S_1 35°03′ 129°24′	S_2 35°18′ 129°25′	01	02	03	04	05	S_1 34°58′ 129°26′	S_2 35°09′ 129°26′	S_3 35°19′ 129°26′
17	17	17	17	27	27	27	27	27	27	27	27
0924	1007	1155	1330	0658	0810	0900	0953	1100	1245	1440	1713
20.40	19.90	19.80	19.60	22.70	23.10	24.30	24.20	24.40	23.80	24.30	22.70
19.55	18.18	18.61	15.32	23.06	23.51	24.10	23.56	24.40	23.21	23.03	20.47
16.22	15.47	15.52	13.68	19.68	16.53	15.68	17.03	18.96	16.02	17.43	16.74
14.18	14.51	13.95	12.92	13.96	13.70	13.95	16.76	17.82	13.93	10.26	10.40
14.08	14.35	12.47	6.62	—	—	13.75	14.19	14.70	12.65	—	—
12.29	—	—	—	—	—	—	5.61	—	4.64	—	—
4.27	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
4.31	11.80	8.70	5.72	9.83	7.95	4.48	2.87	11.64	2.24	5.39	6.66
32.99	32.99	33.42	33.68	31.04	31.73	31.92	32.07	32.25	32.30	31.46	33.77
33.01	—	33.48	34.20	31.53	31.80	31.92	32.05	32.16	32.30	31.46	33.86
33.93	33.95	33.86	34.27	33.46	33.22	32.92	32.70	32.38	32.92	33.33	34.02
34.29	34.22	34.20	34.29	33.96	33.84	34.13	34.20	34.49	34.05	34.15	34.27
34.47	34.33	34.36	34.13	—	—	34.36	34.18	34.33	34.38	—	—
32.33	—	—	—	—	—	—	34.04	—	34.11	—	—
34.04	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
35.84	34.29	34.20	34.11	—	34.16	34.07	33.98	34.29	34.02	34.09	34.11
224	124	120	114	85	105	145	220	160	220	130	90
18	19	18	—	—	18.5	21.0	—	22	18.5	17.5	—
—	—	—	—	—	—	—	—	—	—	—	—
1	1	1	1	3	3	3	3	3	3	4	4
1	1	1	1	1	1	1	1	1	1	1	1
21.2	21	21.5	21.3	24.0	23.2	23.9	24.0	24.0	23.5	24.8	24.2
762	762	762	762	757	757	757	756	756	757	755	755
N. 1	N. 1	N. 1	S. 1	NE. 1	NE. 1	NNE. 1	NNE. 1	NNE. 2	NNE. 1	NNE. 1	NNE. 1
St. 4	St. 4	Cs. 7	St. 4	—	—	St. 4	St. 4	St. 7	Ct. 4	Cs. 3	Ci. 3
BC	BC	BC	BC	B	B	BC	BC	BC	BC	BC	BC

Date		⑦ October 1962					⑧ November	
Station Number		01	02	03	04	05	01	02
Day		3	3	3	3	3	24	24
Item	Time / Z(m)	0730	0817	0908	1007	1053	1218	1300
T °C	0	21. 30	21. 70	22. 30	22. 20	23. 80	16. 80	17. 90
	10	21. 64	21. 14	21. 66	21. 15	24. 37	16. 38	17. 45
	25	20. 96	17. 83	20. 91	21. 01	25. 20	16. 27	16. 95
	50	18. 22	15. 49	19. 02	18. 40	22. 18	16. 10	16. 86
	100	—	—	15. 06	15. 58	15. 89	—	—
	150	—	—	—	12. 17	—	—	—
	200	—	—	—	4. 11	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	11. 55	10. 82	5. 49	3. 99	7. 18	14. 12	13. 29
S ‰	0	—	31. 38	30. 95	31. 18	32. 52	33. 59	33. 86
	10	31. 51	31. 73	31. 09	31. 22	33. 13	33. 64	33. 73
	25	31. 82	32. 65	31. 80	31. 62	33. 78	33. 68	33. 73
	50	31. 89	34. 25	33. 10	33. 64	33. 80	33. 51	33. 60
	100	—	—	34. 49	34. 36	34. 07	—	—
	150	—	—	—	34. 38	—	—	—
	200	—	—	—	34. 02	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	33. 28	34. 27	34. 11	34. 04	34. 38	34. 38	34. 38
Sounding (m)		82	103	134	220	154	85	101
Transp. (m)		6	24	18	19	16	6	15
Color		3	3	3	3	3	—	—
Wave		2	2	2	3	3	3	3
Swell		1	1	1	1	1	1	1
Air Temp. (°C)		20. 0	20	22	22. 0	23. 0	10. 2	10. 6
Air Press. (mm)		770	770	771	771	771	780	779. 5
Wind		NE. 1	NE. 1	NE. 1	NE. 1	NE. 1	SW. 1	SW. 1
Cloud		St. 3	St. 4	St. 4	Cs. 9	Cs. 8	St. 5	St. 4
Weather		BC	BC	BC	C	C	BC	BC

1962			⑨ December 1662				
03	04	05	01	02	03	04	05
24	24	24	25	25	25	25	25
1345	1435	1525	0835	0920	1000	1100	1148
19. 60	19. 60	19. 90	16. 40	16. 80	17. 70	17. 20	17. 10
19. 00	19. 00	19. 07	16. 07	16. 54	15. 66	16. 11	16. 19
19. 07	19. 15	19. 43	15. 57	16. 53	16. 43	17. 11	17. 05
18. 61	18. 79	19. 45	14. 71	15. 81	15. 91	16. 99	16. 86
15. 50	17. 02	17. 21	—	—	14. 01	16. 84	16. 49
—	5. 17	—	—	—	—	16. 05	—
—	4. 18	—	—	—	—	8. 63	—
—	—	—	—	—	—	—	—
10. 45	4. 05	8. 35	13. 00	11. 77	13. 75	8. 38	14. 15
34. 11	34. 05	34. 16	34. 76	34. 74	34. 56	34. 25	34. 72
34. 09	34. 04	34. 18	34. 51	34. 56	34. 56	34. 56	34. 74
34. 16	34. 04	34. 20	34. 31	34. 54	34. 43	34. 54	34. 61
34. 07	34. 04	34. 27	34. 27	34. 52	34. 42	34. 58	34. 65
34. 47	34. 40	34. 27	—	—	34. 38	34. 38	34. 60
—	34. 27	—	—	—	—	34. 34	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
34. 20	34. 04	34. 47	34. 16	34. 34	34. 38	34. 40	34. 58
116	222	162	78	101	114	224	142
16	16	15	12	13	12	15	14
—	—	—	—	—	—	—	—
3	3	4	3	3	5	6	7
1	1	1	1	1	2	2	2
10. 8	10. 3	10. 3	9. 8	10. 0	10. 2	10. 5	10. 7
779	779	779	775	780	780	780	780
SW. 1	SW. 1	SW. 1	W. 1	SW. 3	SW. 4	SW. 4	SW. 5
St. 4	Cs. 4	Ci. 3	St. 5	St. 4	St. 5	St. 5	St. 5
BC	BC	BC	BC	BC	BC	BC	BC

D. 206선 해 양 관 측 성 적

Oceanographic Data, Line 206

Date		① February 1962						
Station Number		01	02	03	S_1 34°26′ 128°59′	S_2 34°36′ 129°01′	S_3 34°47′ 129°02′	S_4 34°56′ 129°04′
Day		3	3	3	3	3	3	3
Item	Time / Z(m)	2135	2030	1905	1720	1540	1210	0915
T °C	0	12.80	13.50	14.30	14.20	13.80	12.80	12.50
	10	12.46	13.47	14.20	14.15	13.73	12.65	11.99
	25	12.36	13.37	14.12	13.74	13.74	12.64	11.93
	50	12.08	13.32	13.53	13.60	13.68	12.63	11.95
	100	—	—	—	13.22	13.38	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	12.04	13.13	13.45	13.08	13.25	12.47	12.01
S ‰	0	34.65	34.63	34.74	34.65	34.76	34.65	34.49
	10	34.56	34.63	34.83	34.74	34.67	34.56	34.51
	25	34.56	34.65	34.72	34.63	34.63	34.54	34.56
	50	34.56	34.56	34.63	34.60	34.74	34.65	34.45
	100	—	—	—	34.63	34.65	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	34.60	34.58	34.69	34.56	34.58	34.49	34.49
Sounding (m)		65	75	96	128	114	105	77
Transp. (m)		—	—	—	14	11	4	4
Color		—	—	—	3	3	4	4
Wave		2	3	3	3	2	3	4
Swell		1	2	2	2	1	2	2
Air Temp. (°C)		6.2	6.8	7.1	7.5	7.8	5.7	5.5
Air Press. (mm)		771	771	771	771	771	772	772
Wind		N. 1	N. 1	N. 1	N. 1	N. 1	N. 1	N. 2
Cloud		Ci. 1	St. 1	Cu. 3	St. 2	St. 3	Cc. 2	Ci. 2
Weather		B	B	BC	B	BC	B	B

② March 1962							
01	02	03	04	S_1 34°26′ 128°59′	S_2 34°36′ 129°01′	S_3 34°47′ 129°02′	S_4 34°56′ 129°04′
6	6	6	6	6	6	6	6
0850	1000	1115	1420	1525	1700	1825	1735
11.20	12.00	13.20	13.40	13.20	13.10	13.00	13.20
11.13	11.82	12.98	13.12	13.09	12.80	12.79	12.49
11.08	11.81	13.05	13.05	13.01	12.00	12.71	12.01
—	11.78	11.67	12.62	11.90	11.33	11.60	11.44
—	—	—	11.73	10.90	10.30	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
11.07	11.78	11.17	11.18	10.76	10.21	10.43	11.37
34.52	34.65	34.47	34.63	34.61	34.58	34.63	34.79
34.56	34.20	34.65	34.56	34.47	34.47	34.58	34.56
34.47	34.38	34.45	34.58	34.47	34.61	34.65	34.47
—	34.58	34.42	34.47	34.49	34.38	34.47	34.56
—	—	—	34.36	34.38	34.33	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
34.40	34.47	34.40	34.47	34.47	34.45	34.38	34.42
55	66	93	132	111	113	90	65
4	6	13	14	12	10	9.5	9
—	—	—	—	—	—	—	—
3	2	3	3	3	3	3	2
1	1	1	1	1	2	2	1
11.5	11.4	11.8	12.0	12.0	12.3	12.6	13.0
763	762	762	762	762	762	763	765
W. 1	W. 1	W. 1	W. 1	W. 1	W. 1	W. 1	NW. 1
Cu. 4	Ci. 3	Cc. 5	Ci. 5	St. 5	St. 4	St. 5	St. 8
BC	BC	BC	BC	BC	BC	BC	C

Date		③ April 1962				④ May 1962				
Station Number		01	02	03	04	01	02	03	04	S_1 34°26′ 128°59′
Day		9	9	9	9	20	20	20	20	20
Item	Time / Z(m)	0710	0810	0925	1110	1738	1637	1535	1434	1315
T °C	0	12.80	13.60	12.70	14.90	15.50	16.00	16.50	16.60	16.50
	10	12.16	13.41	12.38	14.70	14.49	15.58	15.67	15.89	16.45
	25	12.01	14.18	11.97	14.53	14.10	13.54	14.13	14.61	14.62
	50	13.33	11.88	10.98	14.51	13.33	13.24	13.41	13.31	13.58
	100	—	—	—	13.10	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—
	Botm.	11.94	11.71	10.49	12.25	13.19	13.25	13.29	13.25	13.40
S ‰	0	34.56	34.65	34.67	34.72	34.38	34.40	34.20	34.36	34.33
	10	34.60	34.72	34.56	34.72	—	34.56	34.31	34.40	34.34
	25	34.63	34.72	34.56	34.67	34.45	34.54	33.35	34.29	34.34
	50	34.60	34.65	34.65	34.72	34.38	34.49	34.38	34.49	34.40
	100	—	—	—	34.69	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—
	Botm.	34.72	34.65	34.65	34.72	34.27	34.29	34.45	34.42	34.43
Sounding (m)		64	73	97	132	70	75	95	108	110
Transp. (m)		7	11	13	14	7	9	10	10	13
Color		—	—	—	—	—	—	—	—	—
Wave		1	1	1	1	2	1	1	3	2
Swell		1	1	1	1	1	1	1	2	1
Air Temp. (°C)		13.2	13.2	13.1	14.8	17.8	19.0	18.2	18.1	18.2
Air Press. (mm)		763	760	760	762	759	759	765	760	760
Wind		SW. 1	S. 1	S. 1	SW. 1	E/S. 1	E/S. 1	W. 1	SE. 1	WNW. 1
Cloud		St. 10	St. 10	St. 10	St. 10	—	—	Ci. 1	—	Ci. 1
Weather		C	C	C	C	B	B	B	—	B

May 1962			⑤ September 30 ~ October 1, 1962			⑥ November 1962			
S_2 34°36′ 129°01′	S_3 34°47′ 129°02′	S_4 34°56′ 129°04′	01	02	03	01	02	03	04
3	3	3	30	1	1	24	24	24	24
1204	1055	0939	0850	0747	1100	2355	2235	2120	2000
16.50	16.60	15.60	23.10	22.10	21.70	16.60	17.50	17.80	20.40
16.16	15.59	14.98	23.21	21.63	21.23	14.85	15.75	16.32	19.19
15.20	13.94	13.98	23.09	21.89	21.22	15.91	16.75	16.82	19.90
13.35	13.29	13.10	17.23	16.05	14.39	16.03	16.45	16.50	19.83
—	—	—	—	—	—	—	—	—	17.05
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
13.18	13.25	13.04	15.34	15.02	12.77	16.00	15.71	11.72	7.09
34.38	34.38	34.22	—	31.91	31.58	33.55	33.59	33.62	34.18
34.45	34.36	34.29	32.59	31.98	31.67	33.40	33.59	33.77	34.20
34.42	34.38	34.45	32.61	32.09	31.53	33.35	33.57	33.77	34.28
34.34	34.38	34.47	32.86	33.69	33.68	33.33	33.57	34.27	34.16
—	—	—	—	—	—	—	—	—	34.38
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
34.38	34.38	34.38	33.53	34.16	34.33	33.46	33.80	34.33	34.20
98	92	74	70	67	103	62	80	102	156
11	8	5	12	12	12	—	—	—	—
—	—	—	3	3	3	—	—	—	—
3	1	1	5	4	4	3	3	3	3
2	1	1	2	1	2	1	1	1	1
18.0	17.6	16.8	20.0	20.0	20.5	8.1	9.2	9.1	10.0
760	760	760	773.5	772	772	779	779	779	779
W. 1	S. 1	S. 1	NE. 2	NE. 2	NE. 2	SW. 2	SW. 1	SW. 1	SW. 1
Ci. 1	Ci. 2	Ci. 1	Ci. 3	St. 1	St. 1	St. 5	St. 5	St. 5	St. 6
B	B	B	BC	B	B	BC	BC	BC	BC

E. 205선 해 양 관 측 성 적

Oceanographic Data, Line 205

Date		① April 1962						
Station Number		01	02	03	04	05	S_1 33°48′ 127°48′	S_2 33°55′ 127°32′
Day		11	11	11	11	11	11	11
Item	Time / Z(m)	0600	0700	0800	0940	1130	1350	1520
T °C	0	11.40	12.10	14.40	14.60	14.80	14.50	14.50
	10	11.27	11.80	14.13	14.43	15.87	14.03	13.48
	25	11.20	11.81	14.11	15.35	14.44	13.92	13.50
	50	—	—	13.62	14.42	14.49	13.90	13.22
	100	—	—	—	—	14.19	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	11.16	10.82	12.89	14.24	14.19	13.90	13.14
S ‰	0	34.54	34.58	34.81	34.67	34.65	34.56	34.70
	10	34.52	34.72	34.63	34.80	34.65	34.56	34.61
	25	34.54	34.61	34.63	34.65	34.72	34.65	34.61
	50	—	—	34.72	34.65	34.65	34.56	34.72
	100	—	—	—	—	34.63	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	34.54	34.60	34.63	34.65	34.72	34.56	34.67
Sounding (m)		53	56	78	92	116	94	85
Transp. (m)		3.5	10	10	13	14	10	9
Color		—	—	—	—	—	—	—
Wave		2	2	3	3	2	2	1
Swell		1	1	1	1	1	1	1
Air Temp. (°C)		10.5	11.4	13.0	13.0	13.8	14.0	14.9
Air Press. (mm)		767	767	767	767	767	767	766
Wind		NE. 1	NE. 1	NE. 1	NE. 1	NE. 1	NE. 1	NE. 1
Cloud		Cs. 2	Cs. 2	Ci. 2	Cs. 3	Cs. 8	Cs. 2	Cc. 1
Weather		B	B	B	BC	C	B	B

② May 1962						
01	02	03	04	05	S_1 33°48′ 127°48′	S_2 33°55′ 127°32′
22	22	22	22	22	22	22
0655	0840	0943	0732	1353	1017	1821
16. 50	16. 60	16. 50	16. 70	18. 90	16. 30	15. 70
16. 26	15. 77	15. 58	15. 18	16. 56	14. 90	14. 12
14. 97	13. 70	14. 07	14. 47	15. 65	14. 38	13 ·01
—	13. 36	13. 64	13. 78	14. 13	13. 71	13. 70
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
13. 44	13. 34	13. 44	13. 81	14. 05	13. 60	13. 18
33. 96	34. 04	34. 18	34. 33	34. 31	34. 29	34. 29
34. 04	34. 04	34. 20	34. 29	34. 20	34. 31	34. 29
34. 04	34. 18	34. 29	34. 38	34. 36	34. 29	34. 29
—	34. 38	34. 29	34. 38	34. 43	34. 29	34. 29
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
34. 18	34. 22	34. 36	34. 31	34. 65	34. 29	34. 29
52	60	83	70	95	92	86
6	6	6	12	12	11	8
—	—	—	—	—	—	—
1	0	1	0	0	1	1
0	—	—	—	—	—	—
17. 9	18. 2	18. 8	18. 90	19. 9	19. 8	18. 2
763	764	763. 5	764	763	792. 5	762
S. 1	W. 1	N. 1	N. 1	N. 1	NNW. 1	N. 1
Cc. 3	Cc. 4	Cs. 2	Cs. 8	Cs. 9	Cs. 6	Cs. 6
BC	BC	B	C	C	BC	BC

Date		③ September 1962						
Station Number		01	02	03	04	05	01	02
Day		29	29	29	29	29	16	16
Item	Time / Z(m)	0700	0812	0915	1100	1240	1553	1704
T °C	0	21.90	20.70	20.60	21.80	23.10	16.00	19.00
	10	21.50	20.85	20.38	21.05	22.91	15.47	18.57
	25	21.51	20.85	19.55	22.07	25.32	15.50	18.82
	50	15.20	13.43	13.72	14.47	16.76	—	15.07
	100	—	—	—	—	16.19	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	14.22	13.58	14.64	15.53	16.31	14.47	15.42
S ‰	0	32.34	31.33	31.26	30.79	31.31	32.99	33.84
	10	33.95	31.35	31.26	30.75	32.59	32.99	33.77
	25	33.75	31.35	31.55	30.82	33.53	33.04	33.86
	50	31.47	33.86	33.39	33.40	33.89	—	33.12
	100	—	—	—	—	34.63	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	31.49	—	34.45	34.42	34.82	34.13	34.13
Sounding (m)		61	58	78	92	122	58	65
Transp. (m)		12	13	13	13	14	8	6
Color		4	4	3	3	3	2	—
Wave		3	3	4	4	4	4	4
Swell		2	2	2	2	2	1	2
Air Temp. (°C)		16.5	18.0	19.6	20.0	22.0	13.9	13.0
Air Press. (mm)		773	773	773	773	773	—	—
Wind		N. 3	N. 4	N. 3	NNE. 3	N. 3	NE. 1	NE. 2
Cloud		St. 1	St. 1	St. 1	St. 1	St. 1	Sc. 2	Sc. 9
Weather		B	B	B	B	B	B	C

④ November 1962							
03	04	05	S_1 33°34′ 127°58′	S_2 33°34′ 127°45′	S_3 33°33′ 127°33′	S_4 33°32′ 127°21′	S_5 33°31′ 127°08′
17	17	17	17	17	17	17	17
0945	1133	1323	1448	1612	1734	1907	2036
19.20	20.04	21.40	21.40	21.50	20.90	19.90	21.40
18.83	20.14	21.04	21.07	21.25	20.71	19.64	21.08
16.24	20.10	21.09	21.06	21.22	20.71	19.63	21.10
16.07	19.66	21.06	21.07	21.24	20.57	19.75	21.12
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
16.10	18.00	16.79	16.24	15.71	15.87	15.80	16.51
33.31	34.22	34.29	34.33	34.33	34.29	34.05	34.29
33.84	34.15	34.29	34.29	34.40	34.22	34.04	34.20
33.93	34.13	34.29	34.29	34.33	34.25	34.04	34.29
34.47	34.11	34.29	34.29	34.29	34.20	34.09	34.29
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
34.47	34.54	34.65	34.65	34.65	34.56	34.65	34.58
85	93	105	107	107	103	101	112
9	9	14	13	11	—	—	—
—	—	—	—	—	—	—	—
3	3	5	6	4	4	4	4
1	1	1	2	1	1	1	1
13.6	14.2	14.8	14.6	14.2	13.9	13.7	13.9
—	—	—	—	—	—	—	—
NW. 1	NW. 2	NW. 3	NW. 3	NW. 2	NW. 2	NW. 2	NW. 2
Cu. 7	Cu. 8	Sc. 10	Sc. 10	Sc. 10	Sc. 9	Sc. 9	SC. 6
BC	C	C	C	C	C	C	BC

Date		⑤ December 1962							
Station Number		01	02	03	04	05	S_1 33°35′ 127°46′	S_2 33°33′ 127°29′	S_3 33°31′ 127°07′
Day		10	10	10	10	10	10	10	10
Item	Time / Z(m)	1032	1140	1250	1435	1610	1745	1855	2010
T °C	0	12.00	12.40	16.50	17.21	18.50	18.40	18.60	18.50
	10	12.08	12.12	15.36	16.03	17.14	18.27	18.28	16.85
	25	13.38	12.41	15.91	16.39	18.50	18.62	18.81	18.51
	50	—	15.29	15.73	16.28	18.52	18.64	18.83	18.62
	100	—	—	—	—	18.49	18.58	18.79	18.61
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	15.05	15.35	15.72	16.19	18.02	18.55	17.79	18.45
S ‰	0	33.08	33.24	34.54	34.49	34.60	34.63	34.56	34.70
	10	33.08	33.22	34.47	34.56	34.61	34.54	34.52	34.45
	25	33.40	33.33	34.25	34.51	34.49	34.61	34.49	34.43
	50	—	34.13	34.22	34.40	34.56	34.61	34.67	34.42
	100	—	—	—	—	34.56	34.63	34.61	34.52
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	34.04	34.22	34.22	34.43	34.56	34.54	34.42	34.38
Sounding (m)		54	63	83	98	119	125	116	104
Transp. (m)		4	4	12	12	15	—	—	—
Color		—	—	—	—	—	—	—	—
Wave		2	3	4	4	4	5	6	6
Swell		1	1	1	1	1	2	2	2
Air Temp. (°C)		16.0	16.5	16.7	16.5	16.9	16.5	16.0	15.9
Air Press. (mm)		776	776	776	776	775	774	774	774
Wind		N. 1	N. 2	N. 2	N. 2	N. 2	N. 2	N. 2	NW. 2
Cloud		0	St. 3	St. 4	St. 5	Cs. 5	St. 4	Ci. 5	St. 6
Weather		B	BC	BC	BC	BC	BC	BC	BC

F. 204선 해 양 관 측 성 적

Oceanographic Data, Line 204

Date		① March 1962					② May 1962		
Station Number		04	05	06	S_1 33°21′ 126°58′	S_3 32°57′ 126°58′	04	05	06
Day		12	12	12	15	15	25	25	25
Item	Time / Z(m)	0710	0830	0940	1915	1805	1633	1801	1915
T °C	0	14.40	15.30	14.80	14.90	15.60	16.80	17.80	17.50
	10	14.08	15.24	14.57	13.78	15.13	15.44	15.73	16.89
	25	13.95	15.03	14.06	13.69	14.62	13.82	15.17	16.72
	50	13.68	14.32	13.44	13.66	14.26	13.82	14.20	14.05
	100	—	—	12.96	—	13.60	—	—	12.81
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	13.60	13.83	12.86	13.66	13.51	13.77	12.77	12.60
S ‰	0	34.52	34.72	34.65	34.56	34.65	34.00	33.86	33.68
	10	34.63	34.65	34.58	34.56	34.67	34.11	33.78	33.71
	25	34.52	34.72	34.60	34.56	34.66	34.29	34.13	34.13
	50	34.54	34.56	34.56	34.56	34.58	34.29	34.29	34.09
	100	—	—	34.65	—	34.47	—	—	—
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	34.67	34.60	34.65	34.54	34.52	34.34	34.13	34.13
Sounding (m)		81	93	120	104	116	76	90	126
Transp. (m)		7	11	11	—	11	11	14	10
Color		—	—	—	—	—	—	—	—
Wave		2	3	4	1	1	2	3	3
Swell		1	1	1	0	0	1	1	1
Air Temp. (°C)		13.8	14.8	13.5	13.8	14.7	17.6	17.4	17.9
Air Press. (mm)		766	766	767	766	766	762.3	762	762
Wind		ESE. 1	SSE. 1	SE. 2	N. 1	N. 1	NE. 1	E. 1	SE. 1
Cloud		Sc. 10	Sc. 10	Sc. 10	0	0	0	Ci. 1	Ci. 2
Weather		C	C	C	B	B	B	B	B

Date		③ September 30 ~ October 2, 1962							
Station Number		01	02	03	04	05	06	S_1 33°21′ 126°58′	S_2 33°11′ 126°58′
Day		30	30	30	2	2	2	2	2
Item	Time / Z(m)	1400	1535	1715	0725	1900	1036	1320	1455
T °C	0	21.20	21.10	21.50	22.70	25.70	24.60	24.90	25.20
	10	20.84	20.93	21.25	22.52	25.43	24.15	24.60	24.94
	25	20.79	20.84	20.41	22.94	22.18	22.32	23.39	24.83
	50	—	—	—	15.69	18.77	20.49	18.69	22.14
	100	—	—	—	—	—	16.62	—	—
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.		20.29	15.52	14.98	15.51	15.30	17.21	16.53
S ‰	0	33.33	31.29	31.06	31.62	33.55	33.06	33.01	33.86
	10	31.26	31.31	31.00	31.83	33.55	33.04	35.34	33.06
	25	31.24	31.31	31.42	32.29	33.13	33.35	32.56	33.08
	50	—	—	—	32.48	33.71	34.31	33.42	33.24
	100	—	—	—	—	—	34.61	—	—
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.		33.33	32.88	34.31	34.74	34.62	—	34.65
Sounding (m)		38	35	45	85	100	125	95	110
Transp. (m)		20	—	12.5	10.5	24	23	15	24
Color		—	—	—	—	—	—	—	—
Wave		3	3	3	2	3	3	1	2
Swell		1	1	1	1	1	1	1	2
Air Temp. (°C)		21.0	22.0	20.8	20.8	22.0	25.3	24.0	24.0
Air Press. (mm)		767	767	766	763	763	763	763	763
Wind		NE. 1	NE. 1	NE. 1	E. 1	E. 1	E. 1	N. 1	E. 1
Cloud		0	0	0	0	Cu. 1	Cu. 1	Cc. 2	Cc. 4
Weather		B	B	B	B	B	B	B	BC

④ November 1962

01	02	03	04	05	06	S_1 33°21′ 126°58′	S_2 33°11′ 126°58′
12	12	12	12	12	12	12	12
2115	1940	1850	1530	1410	1250	1100	1035
16.50	15.70	15.80	20.20	21.60	21.70	21.70	22.20
16.18	15.46	15.27	19.12	20.06	20.30	19.00	21.65
15.92	14.80	14.85	18.45	20.74	20.79	18.43	21.70
—	—	—	18.66	20.49	20.22	18.39	18.02
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
15.92	14.60	15.06	15.87	15.61	15.35	16.87	16.50
32.45	32.50	32.72	33.42	34.13	34.27	34.49	34.20
32.52	32.48	32.85	33.46	34.20	34.18	34.18	34.20
32.72	32.76	32.90	33.59	34.11	33.95	34.02	33.95
—	—	—	34.04	34.81	34.70	34.56	34.56
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
33.01	32.99	33.42	34.43	34.45	34.29	34.29	32.99
32	35	50	81	95	114	104	105
—	—	—	10	12	13	17	17
—	—	—	—	—	—	—	—
—	2	2	1	1	1	1	1
—	1	1	1	1	1	1	1
18.1	18.2	19.2	21.4	21.9	22.1	22.3	22.5
—	—	—	—	—	—	—	—
—	NW. 1	NW. 1	NW. 1	NW. 1	NW. 1	SW. 1	SW. 1
—	—	Ci	—	—	—	Ci. 1	—
B	B	B	B	B	B	B	B

G. 203선 해 양 관 측 성 적

Oceanographic Data, Line 203

Date		① April 1962				
Station Number		01	02	03	04	05
Day		13	13	13	13	13
Item	Time / Z(m)	0915	1040	1230	2240	1050
T °C	0	11.70	12.50	13.50	14.20	14.40
	10	11.50	12.18	13.31	13.94	13.68
	25	11.34	11.84	13.19	13.71	13.52
	50	—	11.63	13.11	13.70	13.65
	100	—	—	—	—	—
	150	—	—	—	—	—
	200	—	—	—	—	—
	300	—	—	—	—	—
	Botm.	11.21	11.51	12.71	13.71	13.68
S ‰	0	34.47	34.56	34.61	34.65	34.56
	10	34.52	34.67	34.61	34.56	34.60
	25	34.56	34.52	34.70	34.56	34.63
	50	—	34.56	34.56	34.63	34.63
	100	—	—	—	—	—
	150	—	—	—	—	—
	200	—	—	—	—	—
	300	—	—	—	—	—
	Botm.	34.43	34.65	34.61	34.61	34.60
Sounding (m)		50	95	110	74	110
Transp. (m)		5	8	17	—	8
Color		—	—	—	—	—
Wave		3	4	5	3	3
Swell		1	1	2	1	1
Air Temp. (°C)		11.1	16.5	10.8	13.4	13.9
Air Press. (mm)		764	794	764	766	767
Wind		NW. 1	NW. 1	N. 2	SE. 1	S. 1
Cloud		St. 1	St. 1	St. 1	Cs. 2	Cs. 2
Weather		B	B	B	B	B

② June 1962				③ October 1962				
01	02	03	04	01	02	03	04	05
4	4	4	4	6	6	6	4	3
1703	1837	2105	2312	1640	1520	1310	0015	1100
15.90	18.00	18.25	16.50	22.00	22.00	22.80	24.60	24.00
14.51	17.29	17.13	14.54	19.75	21.80	22.51	24.19	23.90
14.19	14.68	15.56	13.61	18.18	22.74	22.56	24.02	23.46
—	13.06	13.20	13.43	13.79	14.03	15.17	20.07	22.15
—	—	12.83	—	—	—	15.58	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
14.09	12.45	12.57	13.48	12.90	12.83	15.32	17.70	17.56
34.13	33.24	33.24	33.55	31.94	31.58	32.89	32.81	33.10
34.13	33.15	33.10	33.60	31.59	31.58	32.89	32.88	33.10
34.13	33.77	33.53	33.86	32.02	32.68	32.89	33.15	33.44
—	33.87	34.13	33.95	33.13	33.33	33.28	34.11	33.71
—	—	34.02	—	—	—	34.13	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
34.13	33.95	34.15	33.86	33.40	33.40	34.18	34.52	34.58
54	82	126	68	65	90	130	80	112
8	12	—	—	1	16	11	—	—
—	—	—	—	—	—	—	—	—
—	—	1	1	2	2	3	2	2
—	—	—	—	1	1	1	1	1
18.4	18.3	18.0	17.2	19.7	20.4	20.2	24.0	25.0
757	757.5	758	758.8	763.5	763.5	763.5	760	760
S. 1	SE. 1	N. 1	SW. 1	NE. 1	NE. 1	NE. 1	NE. 1	N. 1
—	—	—	—	Cs. 4	Cs. 2	Cc. 2	Sc. 10	Sc. 9
B	B	B	—	BC	B	B	C	C

서 해 해 양 조 사 성 적

OCEANOGRAPHIC OBSERVATIONS

WESTERN WATERS

1 9 6 2

A. 314선 해 양 관 측 성 적

Oceanographic Data, Line 314

Date		① April 1962								
Station Number		01	02	03	04	05	06	07	08	09
Day		15	15	15	15	15	16	16	16	16
Item	Time / Z(m)	1500	1315	1145	0950	0800	0920	1220	1355	1535
T °C	0	17.20	16.30	16.60	15.80	15.00	14.00	14.00	14.30	13.70
	10	16.86	15.88	15.46	15.57	14.84	13.93	13.54	13.49	13.04
	25	16.39	15.79	15.48	15.48	14.89	13.44	13.32	13.28	12.72
	50	15.83	15.70	15.44	15.24	13.94	13.50	13.30	13.35	12.30
	100	14.85	15.23	—	—	—	13.58	—	—	—
	150	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—
	Botm.	13.78	14.29	12.97	13.58	13.49	13.53	13.33	13.35	12.22
S ‰	0	34.89	31.89	34.74	34.72	34.74	34.56	34.56	34.58	34.43
	10	34.79	34.79	34.72	34.87	34.65	34.56	34.60	34.56	34.56
	25	34.79	34.79	34.79	34.72	34.63	34.56	34.56	34.56	34.47
	50	34.74	34.72	34.72	34.69	34.65	34.51	34.56	34.63	34.45
	100	34.72	34.72	—	—	—	34.61	—	—	—
	150	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—
	Botm.	34.72	34.56	34.47	34.65	34.47	34.60	34.65	34.56	34.42
Sounding (m)		150	121	103	108	108	116	100	97	88
Transp. (m)		12	15	16	13	10	7	8	7	6
Color		—	—	—	—	—	—	—	—	—
Wave		1	2	1	1	2	2	3	3	3
Swell		1	1	1	0	1	1	1	1	1
Air Temp. (°C)		14.5	13.2	15.1	14.6	13.5	14.0	14.7	14.0	14.1
Air Press. (mm)		766	766	767	766	765	768	767.5	767	766
Wind		NW. 1	NW. 1	N. 1	E. 1	E. 1	SE. 1	SE. 2	S. 1	SE. 1
Cloud		St. 2	—	—	—	—	—	—	—	—
Weather		B	B	B	B	B	B	B	B	B

Date		② October 1962								
Station Number		01	02	03	04	05	06	07	08	09
Day		2	2	2	3	3	3	3	3	3
Item	Time / Z(m)	1940	2140	2345	0230	0545	0900	1235	1430	1620
T °C	0	26.60	26.30	25.20	25.40	25.10	24.10	24.20	24.70	24.70
	10	26.23	26.22	25.01	25.23	24.86	23.85	23.91	24.46	24.41
	25	26.32	26.23	25.64	25.32	25.08	23.93	23.91	24.43	24.35
	50	26.16	22.87	25.83	18.62	19.15	23.02	17.46	18.42	16.19
	100	17.26	—	—	—	—	16.86	—	—	—
	150	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—
	Botm.	13.36	14.49	16.72	16.90	16.81	17.08	16.70	16.89	16.80
S ‰	0	34.05	33.84	32.23	33.46	33.28	32.79	32.34	32.74	32.63
	10	34.00	33.86	33.33	33.48	33.13	32.85	32.30	32.74	32.66
	25	34.00	33.93	33.71	33.53	33.39	33.03	32.38	32.74	32.66
	50	34.00	34.18	33.91	33.93	33.93	33.59	32.50	32.83	33.44
	100	34.05	—	—	—	—	34.69	—	—	—
	150	34.67	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—
	Botm.	37.41	34.67	34.59	34.78	34.78	34.59	34.56	34.61	34.49
Sounding (m)		150	130	110	103	105	135	110	80	84
Transp. (m)		—	—	—	—	—	24	18	18	18
Color		—	—	—	—	—	—	—	—	—
Wave		3	2	2	2	2	0	2	3	2
Swell		1	1	1	1	1	1	1	1	1
Air Temp. (°C)		24.2	24.3	23.3	23.5	23.7	23.0	24.0	23.5	23.5
Air Press. (mm)		761	761	761	761	760	764	760	770	760
Wind		E. 1	N. 1	N. 1	E. 1	E. 1	NW. 1	NE. 1	NE. 1	E. 1
Cloud		0	0	—	—	10	Sc. 10	Sc. 10	Sc. 10	Sc. 10
Weather		B	B	C	R	R	C	C	C	C

B. 313선 해 양 관 측 성 적

Oceanographic Data, Line 313

Date		① April 1962				② June 1962				
Station Number		03	04	05	06	03	04	05	06	07
Day		16	16	16	16	5	5	5	5	5
Item	Time / Z(m)	2140	2020	1910	1805	0025	0138	0252	0407	0518
T °C	0	14.10	14.00	13.90	14.00	18.60	18.47	18.40	18.20	18.40
	10	13.86	13.75	13.73	13.65	17.31	18.18	17.50	17.20	18.08
	25	13.68	13.39	13.11	13.08	13.84	16.38	13.50	12.61	12.10
	50	13.55	13.22	13.10	13.03	13.23	12.98	13.08	12.41	11.23
	100	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—
	Botm.	13.53	13.26	12.10	13.04	13.20	12.98	13.07	12.36	11.13
S ‰	0	34.61	34.65	34.65	34.65	32.88	33.06	32.88	32.66	32.63
	10	34.63	34.65	—	33.65	33.13	33.89	32.92	34.04	32.12
	25	34.60	34.61	34.65	34.65	33.60	34.07	34.00	33.75	33.15
	50	34.65	34.65	34.65	34.63	33.95	33.98	34.13	33.96	33.62
	100	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—
	Botm.	34.65	34.61	34.65	34.58	34.07	33.48	32.59	33.84	33.71
Sounding (m)		90	94	88	90	92	96	94	90	82
Transp. (m)		—	—	—	6	—	—	—	—	—
Color		—	—	—	—	—	—	—	—	—
Wave		4	4	4	3	2	1	2	2	1
Swell		2	1	1	1	—	—	1	1	1
Air Temp. (°C)		13.5	13.9	13.5	14.8	18.2	18.0	18.0	18.0	18.5
Air Press. (mm)		765	765	766	766	759	759	759	759	758
Wind		SE. 2	SE. 2	SE. 2	SE. 1	N. 1	NW. 1	NW. 1	NW. 1	SW. 1
Cloud		Cs. 2	Cs. 2	Cs. 4	Cs. 2	—	—	—	—	Cc. 7
Weather		B	B	BC	B	B	BC	BC	BC	BC

Date		③ October 1962				④ December 1962			
Station Number		02	03	04	05	02	03	04	05
Day		3	3	3	3	13	13	13	13
Item	Time / Z(m)	2310	2150	2025	1905	0920	1028	1137	1245
T °C	0	24.20	23.30	24.20	24.60	17.70	17.80	17.70	17.50
	10	24.01	23.36	23.94	24.45	16.49	17.88	16.14	16.11
	25	24.13	23.53	24.04	24.32	17.75	17.92	17.71	17.50
	50	20.69	15.51	15.06	14.94	17.77	17.93	17.75	17.50
	100	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	17.58	15.33	15.83	15.39	17.17	17.92	17.79	17.49
S ‰	0	32.57	31.60	32.39	32.76	34.61	34.70	34.65	34.67
	10	32.54	32.03	32.39	32.83	34.65	34.65	34.65	34.56
	25	32.99	32.10	32.36	32.88	34.60	34.70	34.65	35.35
	50	33.69	32.56	33.10	33.64	34.61	34.61	34.56	34.45
	100	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	34.33	34.13	34.24	34.09	34.60	34.63	34.58	34.49
Sounding (m)		90	100	98	100	96	96	104	100
Transp. (m)		—	—	—	—	8	8	8	5
Color		—	—	—	—	—	—	—	—
Wave		2	2	2	2	4	4	4	5
Swell		1	1	1	1	1	2	1	2
Air Temp. (°C)		23.0	22.5	24.2	15.2	15.2	15.5	15.5	17.0
Air Press. (mm)		760	760	760	778	778	778	776	766
Wind		NE. 1	N. 1	NE. 1	—	S. 2	S. 2	S. 2	S. 8
Cloud		Sc. 10	Sc. 10	Sc. 10	Sc. 10	Cs. 8	St. 9	St. 10	St. 10
Weather		C	C	C	C	C	C	R	R

C. 312선 해 양 관 측 성 적

Oceanographic Data, Line 312

Date		① April 1962					
Station Number		02	03	04	05	06	07
Day		17	17	17	17	17	17
Item	Time / Z(m)	0245	0415	0525	0720	0845	1050
T °C	0	12.00	21.10	10.90	10.30	10.90	11.30
	10	11.63	9.47	10.76	9.52	10.70	11.00
	25	10.59	9.57	10.19	8.99	10.70	11.11
	50	11.20	9.91	10.04	9.09	—	10.99
	100	—	—	—	—	—	—
	150	—	—	—	—	—	—
	200	—	—	—	—	—	—
	300	—	—	—	—	—	—
	Botm.	11.20	10.01	10.30	9.84	11.30	10.89
S ‰	0	34.45	33.93	34.04	34.13	33.95	34.43
	10	34.38	33.93	34.04	33.62	33.95	34.43
	25	34.20	33.95	34.11	33.78	34.20	34.45
	50	34.45	34.02	34.20	33.93	34.65	34.45
	100	—	—	—	—	—	—
	150	—	—	—	—	—	—
	200	—	—	—	—	—	—
	300	—	—	—	—	—	—
	Botm.	34.38	34.20	34.16	34.16	32.79	34.51
Sounding (m)		65	73	64	78	96	93
Transp. (m)		—	—	—	5	6	5
Color		—	—	—	—	—	—
Wave		1	2	3	2	4	5
Swell		1	1	1	2	2	2
Air Temp. (°C)		13.0	12.5	12.2	11.5	12.9	13.3
Air Press. (mm)		765	764	764	764	764	762
Wind		SE. 1	SSE. 1	SE. 1	SE. 1	S. 2	SE. 2
Cloud		Ci. 1	Cs. 10	St. 10	St. 10	St. 10	St. 10
Weather		B	C	C	C	C	C

Date		② June 1962						
Station Number		02	03	04	05	06	07	08
Day		5	5	5	5	5	5	5
Item	Time / Z(m)	1814	1705	1544	1418	1240	1051	1009
T °C	0	18.30	18.50	18.20	18.30	15.70	18.00	18.50
	10	17.89	17.39	16.38	16.68	13.95	17.14	17.98
	25	13.69	11.83	11.78	12.10	11.80	13.96	11.70
	50	12.49	11.59	11.47	11.66	11.35	10.58	10.56
	100	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	12.40	10.98	11.54	11.67	11.40	10.55	10.53
S ‰	0	—	33.77	33.62	34.02	33.24	33.42	33.24
	10	—	33.64	33.59	33.84	33.33	33.30	33.24
	25	—	33.87	34.11	33.98	33.86	33.55	33.71
	50	—	33.91	33.98	33.77	33.98	34.11	33.93
	100	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	—	34.04	34.09	34.05	34.13	34.02	32.27
Sounding (m)		78	84	73	80	108	96	92
Transp. (m)		7	6	8	6	5	13	14
Color		—	—	—	—	—	—	—
Wave		2	3	2	1	0	1	1
Swell		1	1	1	0	0	0	0
Air Temp. (°C)		18.0	17.9	17.9	18.7	17.0	17.9	19.0
Air Press. (mm)		758.5	759	759	759	759	760	759.5
Wind		N. 1	NNW. 1	NW. 1	NE. 1	N. 1	N/E. 1	NNE. 1
Cloud		Sc. 7	Sc. 8	Ci. 3	Ci. 8	Ci. 3	Sc. 8	Sc. 4
Weather		BC	C	BC	C	BC	C	BC

③ July 1962

03	04	05	06	07	08	09
28	28	29	29	29	29	29
2152	2320	0050	0210	0358	0430	0650
24.90	24.60	24.80	24.80	25.40	25.50	25.30
19.75	—	21.27	—	24.30	—	23.08
16.50	—	18.23	—	17.27	—	13.78
12.68	—	15.82	—	12.01	—	10.28
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
11.66		11.39		11.00		10.65
—	—	30.25	—	31.28	—	30.66
—	—	33.93	—	31.46	—	31.04
—	—	32.45	—	32.19	—	33.33
—	—	33.15	—	33.77	—	33.80
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
		33.95		34.04		33.86
80	7	79	108	101	79	93
—	—	—	—	—	—	9
—	—	—	—	—	—	—
—	—	—	—	—	2	1
—	—	—	—	—	2	1
25.0	25.0	24.9	24.7	25.6	25.7	25.8
764	764.2	764	765	765	764	763
SW. 1	SW. 1	S. 1	SE. 2	SE. 2	W. 2	W. 1
—	—	—	—	—	Cs. 3	Sc. 3
—	—	—	—	—	BC	BC

Date		④ October 1962						⑤ December 1962			
Station Number		02	03	04	05	06	07	02	03	04	05
Day		7	7	7	7	7	7	13	13	13	13
Item	Time / Z(m)	1040	1200	1335	1520	1700	1900	2030	1961	1808	1700
T °C	0	21.20	21.40	21.20	18.90	19.40	19.70	16.50	13.80	16.20	15.20
	10	21.09	21.10	20.70	17.75	18.82	19.47	15.81	14.18	15.91	15.03
	25	17.61	10.41	14.63	15.94	15.90	11.96	16.49	13.74	15.91	15.05
	50	11.98	11.93	12.10	13.68	13.92	11.48	16.51	13.69	15.53	—
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—
	Botm.	12.03	11.79	12.08	10.47	11.31	11.11	16.45	13.65	15.42	—
S ‰	0	30.95	31.04	31.03	31.92	31.53	31.40	34.24	33.48	34.27	33.86
	10	30.95	31.04	31.09	31.96	31.56	31.40	34.24	33.50	34.29	33.89
	25	31.76	31.40	32.97	32.38	32.43	33.19	34.29	33.51	34.15	33.93
	50	33.37	33.21	33.30	33.04	32.97	34.22	34.31	33.44	34.00	33.93
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—
	Botm.	33.40	37.36	33.33	33.60	33.68	33.84	34.29	33.42	—	34.00
Sounding (m)		72	85	75	85	105	90	68	75	79	90
Transp. (m)		19	18	20	9	16	—	—	—	—	4
Color		—	—	—	—	—	—	—	—	—	—
Wave		2	3	2	2	2	—	5	5	4	4
Swell		1	1	1	1	1	1	2	2	2	2
Air Temp. (°C)		20.2	20.8	21.8	20.9	18.5	19.0	17.5	18.0	20.0	16.0
Air Press. (mm)		762	762	765	764	764	764	776	775	775	776
Wind		NE. 1	NE. 1	NE. 1	NE. 1	NE. 1	NE. 1	S. 2	S. 2	S. 1	S. 1
Cloud		Ci. 6	Ci. 5	Cc. 4	Cs. 3	Cs. 9	10	10	St. 8	St. 7	St. 7
Weather		BC	BC	BC	BC	C	C	R	C	BC	BC

D. 311선 해 양 관 측 성 적

Oceanographic Data, Line 311

Date		① April 1962					② June		
Station Number		04	05	06	07	08	04	05	06
Day		23	23	19	19	19	6	6	8
Item	Time / Z(m)	0650	0530	0850	1040	1150	0015	0114	0445
T °C	0	8.10	8.20	8.00	8.80	8.50	15.35	14.30	15.30
	10	7.59	7.53	7.53	8.24	7.70	14.58	12.59	14.01
	25	7.29	7.34	7.28	7.30	7.44	13.89	12.36	13.69
	50	—	7.24	6.81	7.39	7.54	—	12.15	8.69
	100	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	7.24	7.24	6.81	7.50	8.00	12.96	11.99	8.77
S ‰	0	32.97	32.81	32.88	32.97	32.88	—	33.35	33.59
	10	32.90	32.81	32.85	33.06	32.99	33.86	33.40	33.51
	25	32.81	32.90	32.94	33.06	32.90	33.86	33.42	33.51
	50	—	32.86	32.94	33.24	33.01	—	33.37	33.42
	100	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	32.85	32.85	33.01	33.15	33.50	33.68	33.60	33.60
Sounding (m)		34	81	95	92	95	44	78	78
Transp. (m)		4	—	4	8	10	—	—	—
Color		—	—	—	—	—	—	—	—
Wave		1	1	2	3	2	2	2	3
Swell		1	0	1	1	1	1	1	2
Air Temp. (°C)		11.1	11.0	10.8	9.8	10.0	16.0	14.3	16.2
Air Press. (mm)		765	765	767	768	767	760	760	758.8
Wind		ENE. 1	ENE. 1	W. 1	W. 1	W. 1	NE. 1	SW. 1	W. 2
Cloud		St. 7	St. 7	—	—	—	—	—	—
Weather		BC	BC	B	B	B	BC	BC	B

Date		June 1962			③ July 1962		
Station Number		07	08	09	04	05	06
Day		8	8	8	30	30	29
Item	Time / Z(m)	0314	0545	0648	1129	1007	1604
T °C	0	15.70	16.40	16.50	22.20	21.50	24.50
	10	15.41	15.18	16.21	19.69	20.09	26.06
	25	12.56	12.00	12.83	19.04	18.71	17.88
	50	12.28	9.58	9.73	—	15.82	13.66
	100	—	—	—	—	—	—
	150	—	—	—	—	—	—
	200	—	—	—	—	—	—
	300	—	—	—	—	—	—
	Botm.	11.61	10.18	9.90	18.48	14.77	11.67
S ‰	0	33.22	33.08	33.17	32.41	32.27	31.22
	10	33.42	33.24	33.15	32.36	32.36	31.82
	25	33.39	33.42	33.42	32.61	32.50	32.79
	50	32.99	33.15	33.15	—	33.08	33.48
	100	—	—	—	—	33.08	33.48
	150	—	—	—	—	—	—
	200	—	—	—	—	—	—
	300	—	—	—	—	—	—
	Botm.	33.08	33.69	33.42	32.72	33.22	33.48
Sounding (m)		84	90	83	33	69	81
Transp. (m)		—	9	7	10	9	12
Color		—	—	—	—	—	—
Wave		3	3	2	2	2	3
Swell		2	2	2	1	1	1
Air Temp. (°C)		16.4	17.3	17.8	25.2	23.8	25.9
Air Press. (mm)		760	758.5	758.2	764.8	764.9	764
Wind		W. 1	W. 1	W. 1	S. 2	S. 1	S. 2
Cloud		—	Ci. 2	Ci. 3	Sc. 8	Sc. 8	Cs. 3
Weather		B	B	BC	C	C	BC

		④ October 1962				
07	08	04	05	06	07	08
29	29	12	12	8	8	7
1404	1115	1215	1030	0340	0130	2400
25. 50	25. 50	18. 20	17. 40	18. 50	18. 10	18. 00
25. 07	24. 37	17. 31	17. 10	17. 72	17. 20	17. 32
17. 45	22. 95	17. 26	16. 43	17. 04	16. 93	16. 93
13. 69	13. 72	—	15. 69	13. 32	12. 63	12. 09
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
9. 52	8. 39	15. 39	15. 62	11. 89	11. 25	12. 19
30. 11	31. 11	32. 12	32. 34	32. 11	32. 12	32. 21
31. 04	31. 22	32. 30	32. 30	32. 78	32. 21	32. 30
33. 06	31. 78	32. 30	32. 39	32. 30	32. 32	32. 39
33. 77	33. 42	—	32. 61	33. 21	33. 30	33. 53
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
33. 40	33. 33	32. 21	32. 66	33. 57	33. 73	33. 77
84	90	35	70	90	88	80
9	11	5	—	—	—	—
—	—	—	—	—	—	—
2	2	1	2	—	—	—
1		1	1	1	1	1
26. 5	27. 0	20. 0	19. 2	—	18. 0	18. 9
764	763. 5	763	763	764. 5	765	764
S. 2	S. 2	N. 1	N. 1	N. 1	NW. ?	NW. 1
Ci. 1	Cs. 1	Cu. 1	Cc. 3	9	10	10
B	B	B	BC	C	C	C

E. 310선 해 양 관 측 성 적

Oceanographic Data, Line 310

Date		① April 1962					
Station Number		02	03	04	05	06	07
Day		24	24	24	24	24	24
Item	Time / Z(m)	0800	0915	1030	1210	1540	1710
T °C	0	9.80	9.40	9.30	9.30	9.70	9.70
	10	9.30	8.54	7.49	8.36	8.48	8.81
	25	—	6.91	6.61	6.72	6.91	7.71
	50	—	—	6.63	6.71	6.94	7.15
	100	—	—	—	—	—	—
	150	—	—	—	—	—	—
	200	—	—	—	—	—	—
	300	—	—	—	—	—	—
	Botm.	9.15	6.70	6.59	9.73	6.93	7.18
S ‰	0	32.47	32.41	32.72	32.79	32.94	32.85
	10	32.48	32.39	32.81	32.79	32.85	32.90
	25	—	32.66	32.72	32.90	32.90	32.85
	50	—	—	32.72	32.81	32.99	32.92
	100	—	—	—	—	—	—
	150	—	—	—	—	—	—
	200	—	—	—	—	—	—
	300	—	—	—	—	—	—
	Botm.	32.50	32.50	34.56	32.88	32.90	33.03
Sounding (m)		23	57	68	72	76	80
Transp. (m)		1	4	8	9	8	9
Color		—	—		—	—	—
Wave		1	1	1	1	2	3
Swell		1	1	1	1	1	1
Air Temp. (°C)		10.8	10.3	10.2	10.1	10.1	9.7
Air Press. (mm)		764	764	764	765	764	764
Wind		E. 1	E. 1	E. 1	E. 1	NE. 1	NE. 1
Cloud		St. 10	St. 10	St. 10	St. 10	St. 10	St. 10
Weather		C	C	C	C	C	C

② June 1962					③ July 30 ~ August 1, 1962					
02	03	04	05	06	04	06	07	08	09	10
8	8	8	8	8	30	31	31	31	1	1
1618	1436	1332	1205	1104	1553	2014	2125	2247	0002	0125
17. 80	19. 00	19. 00	18. 60	18. 25	26. 30	26. 50	26. 20	26 00	25. 80	25. 50
16. 26	17. 43	17. 39	17. 48	17. 19	25. 67	25. 19	—	25. 09	—	25. 31
11. 28	8. 31	7. 45	7. 25	7. 35	19. 72	18. 86	—	23. 35	—	23. 97
—	—	7. 93	7. 31	7. 50	—	10. 43	—	7. 83	—	7. 84
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
10. 86	8. 27	7. 80	7. 31	7. 34	16. 91	10. 31	—	7. 77	—	7. 73
10. 86	32. 25	32. 32	32. 32	32. 30	31. 90	31. 15	32. 52	32. 57	33. 04	31. 65
33. 19	32. 43	32. 29	32. 36	32. 29	32 74	32. 45	—	32. 63	—	32. 45
—	32. 45	32. 52	32. 68	32. 89	33. 24	33. 22	—	32. 97	—	32. 54
—	—	32. 59	32. 77	32. 72	—	33 22	—	32. 89	—	33. 15
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	32. 45	32. 66	32. 79	32. 72	31. 22	32. 43	—	31. 42	—	31. 85
38	58	71	80	82	76	75	80	85	92	91
6	8	10	9	9	7	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
0	2	2	0	0	2	1	—	1	—	—
2	2	2	2	2	1	—	—	—	—	—
18. 2	18. 7	19. 2	19. 1	20. 0	27. 2	26. 9	26. 1	26. 0	26. 0	26. 6
761	761	761	761. 2	761	766	765	765. 1	765	764. 9	764. 1
SE. 1	S. 1	S. 1	Sw. 1	SSW. 1	S. 1	NE. 1	NNE. 1	NNE. 2	NE. 1	NNE. 2
Cs. 8	Ci. 8	Ci. 5	Ci. 4	Ci. 3	Ci. 4	—	—	—	—	—
C	C	BC	BC	BC	BC	B	B	B	B	

Date		④ October 1962					
Station Number		02	03	04	05	06	07
Day		12	12	12	12	12	12
Item	Time / Z(m)	1618	1745	1915	2040	2200	2330
T °C	0	19.30	19.80	19.80	20.10	19.60	19.60
	10	18.87	19.04	19.36	19.94	19.26	18.94
	25	—	15.96	17.81	19.14	18.63	17.61
	50	—	—	13.96	12.80	12.34	13.59
	100	—	—	—	—	—	—
	150	—	—	—	—	—	—
	200	—	—	—	—	—	—
	300	—	—	—	—	—	—
	Botm.	15.72	14.90	13.42	12.70	11.42	10.10
S ‰	0	31.89	31.85	31.78	31.76	31.65	31.85
	10	31.89	31.85	31.91	31.51	31.78	31.85
	25	—	32.65	32.21	31.85	31.85	32.12
	50	—	—	33.08	33.21	33.17	33.12
	100	—	—	—	—	—	—
	150	—	—	—	—	—	—
	200	—	—	—	—	—	—
	300	—	—	—	—	—	—
	Botm.	31.92	32.83	33.15	33.22	33.17	33.28
Sounding (m)		35	60	75	75	73	86
Transp. (m)		1	—	—	—	—	—
Color		—	—	—	—	—	—
Wave		1	2	—	—	1	1
Swell		1	1	1	1	1	1
Air Temp. (°C)		19.7	19.2	19.2	19.1	18.8	18.7
Air Press. (mm)		760	760	761.5	761	761	761
Wind		W. 1	W. 1	SW. 1	SW. 1	SW. 1	SW. 1
Cloud		Cc. 2	Sc. 4	Sc. 7	Sc. 6	Sc. 6	Ci. 4
Weather		B	BC	BC	BC	BC	BC

F. 309선 해 양 관 측 성 적

Oceanographic Data, Line 309

Date		① April 1962						
Station Number		01	02	03	04	05	06	07
Day		25	25	25	24	24	24	24
Item	Time / Z(m)	0340	0210	0110	2340	2230	2115	2205
T °C	0	7.60	7.40	7.10	7.50	8.80	8.90	9.00
	10	7.42	6.98	6.72	6.25	7.70	7.07	7.49
	25	—	6.80	6.59	6.63	6.47	6.22	6.54
	50	—	—	—	6.58	6.63	6.19	6.59
	100	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	7.26	6.74	6.55	6.57	6.43	6.19	6.58
S ‰	0	32.09	32.11	32.38	32.54	32.63	32.66	32.66
	10	32.11	32.20	32.32	32.63	32.68	32.76	32.72
	25	—	32.38	32.45	32.61	32.79	32.70	32.94
	50	—	—	—	32.56	32.72	32.72	32.80
	100	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	32.12	32.50	32.56	32.63	32.74	32.79	32.85
Sounding (m)		28	42	52	64	70	75	80
Transp. (m)		—	—	—	—	—	—	—
Color		—	—	—	—	—	—	—
Wave		2	2	3	3	3	3	2
Swell		1	1	1	1	1	1	1
Air Temp. (°C)		9.0	9.0	9.0	9.1	9.2	9.4	9.1
Air Press. (mm)		762	762	763	763	763	763	764
Wind		E. 1	E. 1	E. 1	E. 1	NE. 1	ENE. 1	NE. 1
Cloud		St. 10	St. 10	St. 10	St. 10	St. 10	St. 10	St. 10
Weather		R	R	R	R	R	R	C

Date		② June 1962			③ August 1962				
Station Number		01	02	03	01	02	03	04	05
Day		10	10	10	4	4	4	4	4
Item	Time / Z(m)	1137	1245	1343	0544	0655	0827	0943	1059
T °C	0	16.60	17.20	18.40	25.50	23.70	24.50	24.50	24.60
	10	15.43	16.02	17.95	25.10	—	24.25	—	24.33
	25	—	—	11.40	25.07	—	19.95	—	21.25
	50	—	—	—	—	—	—	—	13.99
	100	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	14.60	12.75	10.56	24.30	—	19.14	—	13.91
S ‰	0	32.02	32.19	32.29	32.09	32.09	31.99	32.12	31.91
	10	31.89	32.11	32.14	32.61	—	33.04	—	31.85
	25	—	—	32.19	32.63	—	33.08	—	33.40
	50	—	—	—	—	—	—	—	33.49
	100	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—
	Botm.	31.87	32.01	32.34	32.65	—	31.99	—	31.91
Sounding (m)		26	36	53	30	40	53	60	70
Transp. (m)		5	7	9	2	—	9	8	9
Color		—	—	—	—	—	—	—	—
Wave		3	3	4	2	2	0	0	0
Swell		1	2	2	2	2	1	1	1
Air Temp. (°C)		17.9	17.9	18.0	24.5	24.0	23.0	24.6	23.6
Air Press. (mm)		760	760	759	769.8	769.2	770	770.2	770.2
Wind		S. 1	SW. 1	SW. 2	W. 1	SSW. 1	SSW. 1	SSW. 1	SSW. 1
Cloud		Ci. 2	Ci. 4	Ci. 5	Sc. 1	Sc. 3	Sc. 3	Cs. 10	F. 10
Weather		B	BC	BC	B	BC	C	C	C

④ October 1962

01	02	03	04	05	06	07
13	13	13	13	13	13	13
1410	1135	0955	0830	0700	0535	0407
19.40	19.40	19.20	19.70	20.10	20.10	20.30
18.61	17.65	18.03	19.52	19.78	19.53	19.85
18.95	—	17.97	19.52	19.68	19.82	19.86
—	—	—	—	—	14.31	15.52
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
19.00	18.60	13.20	16.71	15.16	13.42	10.58
32.05	31.96	32.12	31.80	31.71	31.51	33.24
32.03	32.21	32.21	31.78	31.70	31.55	33.26
32.03	—	32.32	31.85	31.80	31.83	31.58
—	—	—	—	—	32.90	32.74
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
31.99	32.16	32.11	32.65	32.83	33.03	32.81
30	35	50	65	70	76	80
0.5	8	—	9.5	—	—	—
—	—	—	—	—	—	—
5	5	5	4	4	—	—
2	1	1	1	1	1	1
16.2	16.5	18.0	18.1	19.0	17.8	—
762	762	—	761.5	761	760	760.5
NW. 2	NW. 2	N. 2	N. 2	N. 2	NW. 2	—
Cc. 5	Sc. 3	Sc. 3	Sc. 9	Cc. 10	Cc. 10	Cc. 10
BC	BC	BC	C	C	R	R

G. 308선 해 양 관 측 성 적

Oceanographic Data, Line 308

Date		① April 1962						
Station Number		02	03	04	05	06	07	08
Day		25	25	25	26	26	26	26
Item	Time / Z(m)	0645	0800	0910	0925	1020	1130	1240
T °C	0	7.30	7.10	7.20	7.40	7.70	8.00	8.40
	10	7.07	6.72	6.91	6.61	7.34	7.67	7.55
	25	—	—	6.13	6.58	7.08	6.04	6.49
	50	—	—	—	—	—	5.95	6.14
	100	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	7.02	6.54	5.88	6.06	5.99	5.90	6.11
S ‰	0	32.12	32.11	32.29	32.39	32.38	32.63	32.48
	10	32.23	32.36	32.18	32.18	32.38	32.43	32.50
	25	—	—	32.38	32.41	32.47	32.61	32.61
	50	—	—	—	—	—	32.70	32.70
	100	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	32.21	32.20	32.38	32.54	32.54	32.63	32.79
Sounding (m)		22	32	52	59	66	74	73
Transp. (m)		3	3	5	7	12	13	12
Color		—	—	—	—	—	—	—
Wave		2	3	3	2	3	3	3
Swell		1	1	1	1	1	1	1
Air Temp. (°C)		8.5	8.1	8.2	8.0	8.1	9.0	9.5
Air Press. (mm)		761	760	760	759	760	760	760
Wind		NE. 1	NE. 1	NE. 1	NW. 1	NW. 1	NW. 1	NW. 1
Cloud		St. 10	Cu. 10	Cu. 10	Sc. 10	Sc. 10	St. 9	St. 10
Weather		R	R	R	C	C	C	C

② August 1962						③ October 1962							
03	04	05	06	07	09	01	02	03	04	05	06	07	08
1	1	1	1	1	1	18	18	18	18	18	19	19	19
1652	1503	1350	1223	1107	0833	1735	1855	2020	2145	2310	0020	0150	0320
25.60	25.90	25.90	25.80	25.20	25.50	18.40	18.20	18.10	17.20	18.30	18.70	18.90	18.80
25.11	—	25.50	—	25.31	25.13	18.07	—	17.42	16.78	17.97	18.64	18.49	18.55
23.58	—	21.53	—	21.17	20.76	—	—	—	16.75	18.81	17.94	18.43	18.52
—	—	—	—	7.23	6.79	—	—	—	—	—	14.47	—	13.03
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
19.21	—	10.27	—	7.24	6.98	17.99	17.86	17.40	16.72	15.27	14.41	13.43	12.70
32.36	32.23	31.91	32.09	31.15	31.18	31.98	32.30	32.36	32.48	32.30	32.14	32.14	34.13
32.63	—	32.61	—	31.22	32.45	32.11	—	32.41	32.57	32.32	32.12	32.14	32.02
32.99	—	32.79	—	32.70	32.70	—	—	—	32.57	32.36	32.32	32.18	32.21
—	—	—	—	32.65	32.72	—	—	—	—	—	32.94	—	33.08
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
32.52	—	32.27	—	31.82	32.88	32.12	32.30	—	32.59	32.77	32.92	32.72	33.08
37	50	57	72	73	82	30	35	36	50	57	65	75	70
13	—	10	—	15	10	1	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	—	—	—	1	3	—	—	—	2	2	2	2
—	—	—	—	1	—	1	1	1	1	1	1	1	1
25.5	25.5	25.8	26.4	25.8	25.0	17.2	16.0	1.59	16.3	15.3	15.5	15.4	17.8
763	764	764.2	764.4	764.5	764.8	768	768	769.5	769.5	770.0	770	770	769.5
E. 2	E. 1	SSE. 1	NE. 1	NE. 1	NE. 1	N. 1	N. 1	N. 1	N. 1	N. 1	N. 1	N. 1	N. 1
Sc. 10	Ns. 10	Sc. 10	Ns. 10	Sc. 10	Sc. 10	Ns. 1	—	—	—	—	—	—	—
C	R	R	R	C	R	B	B	BC	BC	B	B	B	B

부 유 생 물 조 사 표

PLANKTON DATA

1 9 6 2

浮游生物調査

本場 및 支場에서 海洋觀測時 採集한 資料를 檢索調査한 結果는 다음表와 같다.

1) 採 集 網 및 方 法

採集網은 海洋調査年報 第9, 10號와 같이 中井式 Plankton Net〈特 B型〉를 使用하여 定量採集하였으며 水深 50m에서 表面까지 1~2分間의 速度로서 引揚 採集하여 3~5%의 홀마링으로 固定하였다.

2) 採集된 試料의 處理方法

上記 Net 로서 採集한 試料에 對해서 大型인 水母類와 甲殼類를 除去하고 重量測定法에 依하여 濕重量을 測定한 後 試料를 標本分割器로서 等量으로 分割하였으며 그 中 普通 1/10을 摘出하여 顯微鏡下에서 檢索하였다. 檢索한 Plankton의 量에 對해서는 各種의 出現頻度에 따라서 C~R 法으로서 表示하였다.

※ CC ; 아주많음 45%
C ; 많음 30%
+ ; 보통 15%
R ; 드뭄(稀) 8%
RR ; 아주드뭄(甚稀) 2%

Plankon Collections

The plankton were collected at each serial hydlographic stations in the neighbouring water of Korea.

The results are as following tables.

1. Plankton Net

NAKAI's plankton net, (or Marutokunet "B")

Mouth diameter 45cm ; front section length 15cm, shape cylindrical, material: canvas ; bag length 86cm, shape conical, material Müllergaze No. GG 5. The net hauled from 50m depth to the surface for two minutes.

2. Method of Analysis

The plankton samples collected are mesuled by wet weight. but lage plankton such as Hydromedusae, Scyphomedusae, Salpa anpdDoliolum were excepted, after this work, subsampling of plankton was made by whirring apparatus if collected sample has bight concentration. Then each species is counted with micrscop.

The occurrence classify by visual estimation.

※ CC ; Dominant C ;Frequent, + ; present, R ; Rare, RR ; Recorded but rare.

A. 107 선 부유생물 조사성적

Plankton Data, Line 107 1962

Month	April			June		
Station	02	04	06	01	03	06
Date	13	9	13	24	26	28
Time	0720	1050	1545	1835	1630	1300
Biomass(mg/m³)	106. 7	30. 0	186. 0	222. 0	242. 0	114. 2
Collected depth	50	50	50	50	50	50
Zooplankton						
Calanus finmarchicus				R	C C	+
Calanus sp	+					
Calanus tenuicornis	R R	R	R			
Eucalanus elongatus						R R
Clausocalanus arcuicornis				+	R R	R
Pseudocalanus elongatus				C C	R	+
Paracalanus parvus	C C	+	C C	C	+	R
Metridia lucens					C	
Oithona plumifera	C	R R		+		+
Oithona similis		C C	C			
Copepoda sp		+				
Amphipoda sp				R R	R R	R R
Oikopleura longicauda				R R		
Brachyura larva				R R		
Brachyscelus larva				R	R R	R
Mysis larva					R R	
Sagitta delicata	R R			R R	R	R R
Sagitta sp		R R	R R			R R

B. 106선 부유생물 조사성적

Plankton Data, Line 106 1962

Month	June				August		
Station	02	03	04	07	02	04	06
Date	28	28	29	28	4	4	4
Time	0735	0810	0903	1515	1035	1205	1715
Biomass(mg/m^3)	85.3	70.3	121.8	56.4	14.0	18.8	11.2
Collected depth	50	50	50	50	50	50	50
Zooplankton							
Calanus finmarchicus	R R	+	+	R R	R R	+	+
Calanus tenuicornis						R R	R
Paracalanus parvus	C C	C C	+	+	C C	C	+
Clausocalanus arcuicornis	+	+	R	+			
Psedocalanus elongatus	C	C	+	C			
Metridia longa	R R		R	R			
Labidocera detruncata						R R	R R
Acartia clausi		R					
Oithona plumifera	R R	R	R R	R R		+	R
Oithona similis					R		
Oncaea venusta					R R		
Copepoda sp					C	C	+
Amphipoda sp	R R	R R	R R	R R			
Oikopleura longicauda			R R	R R			R R
Brachyscelus latipes							R R
Paracalanus larva							R R
Pelagic egg	R R	R R					
Sagitta delicata	R R			R R			
Sagitta sp			R R				

C. 105선 부유생물 조사성적

Plankton Data, Line 105, 1962

Month	April		June	
Station	06	08	03	05
Date	9	9	24	24
Time	1105	0530	2050	1845
Biomass(mg/m^3)	106.7	242.0	61.5	137.0
Collected depth	50	50	50	50
Zoop'ankton				
Calanus finmarchicus	R R	R R	R	+
Calanus tenuicornis	R R	R R	R R	R
Eucalanus elongatus				
Paracalanus parvus	C C	C	C	R
Psedocalanus elongatus				
Metridia lucens	R R	R		R
Metridia longa				
Oithona plumifera	R	+		
Oithcna similis	R R			
Oncaea venusta	R R	R R		
Corycaeus sp				
Copepoda sp	+			+
Euphausia sp				
Amphipoda sp				
Oikopleura longicauda				
Oikopleura sp		R R		R R
Brachyscelus latipes			R	+
Atlanta sp		R R		
Brachyscelus larva	R R	R R		
Macrura larva				R R
Sagitta delicata		R R		
Sagitta sp				

	October			
07	03	05	07	09
24	2	2	2	1
1505	1040	0715	0120	1935
60. 1	6. 3	20. 0	30. 0	11. 3
50	50	50	50	05
	R R	+	R	R R
R R				R R
			R R	
+	C	C	R	C
	C	C		
C C	R	R		R R
R	C		R	R
R R				
				R R
+				R
			R R	
	+	R	R R	
	+		R R	
				R R
R R				R R
R R				R R
	R R		R	
R R	R R	R R	R	

D. 104선 부유생물 조사성적

Plankton Data, Line 104 1962

Month	April				June		
Station	04	06	08	10	05	06	07
Date	9	9	9	9	24	24	24
Time	0850	1145	1720	2220	0334	0525	0710
Biomass(mg/m³)	35.4	61.5	344.0	380	139	69	36.3
Collected depth	50	50	50	50	50	50	50
Zooplankton							
Calanus finmarchicus					R R	R R	R R
Calanus tenuicornis		+	R R			R R	R R
Calanus helgolandicus							
Calanus plumchrus							
Calanus cristatus					R R		
Calanus sp							
Eucalanus attenuatus							R R
Eucalanus elongatus							R R
Mecynocera clausi					R R		
Paracalanus parvus				+	C C	C C	C C
Clausocalanus furcatus						R	
Clausocalanus arcuicornis					+		R R
Calocalanus pavo							
Pseudocalanus elongatus					R		R R
Euchaeta marina					R R	R	R R
Metridia longa					+	R R	
Metridia lucens		k	C				
Acartia clausi							
Acartia spinicauda							
Calanoides cornatus							
Scolecithrix bradyi							R R
Candacia dipinnata							R R
Candacia armata							
Candacia sp						R R	
Oithona plumifera		R	+	R	+	+	R
Oithona similis				R R			
Oncaea venusta							
Corycaeus sp						R R	R R
Copepoda sp		+		+			
Copepoda nauplius	C C						
Nauplius stage					R R		
Amphipoda sp					R R	R	R
Euphausia sp							
Nyctiphanes australis							
Mysis sp					R R	R R	
Sagitta delicata			R			R R	R
Sagitta sp							R R
Conchoecia sp							
Oikopleura fusiformis							
Oikopleura longicauda					R	+	+
Oikopleura sp				R R			
Brachyscelus latipes							
Brachyscelus larva				R R			
Macrura larva							
Ophiopluteus larva							
Balanus larva							
Bivalves larva							
Heliozoa sp							
Atlanta sp							
Ceratium intermedium							
Ceratium gracile							
Pyrocystis noctiluca							
Pelagic egg							+

August				October			November		
04	06	08	09	05	07	09	04	06	08
1	1	1	1	9	9	9	19	19	19
0017	1245	0725	0957	1050	0810	0445	0434	0643	0942
35.0	17.6	26.2	22.4	5.6	57.6	95.5	52.6	56.4	152.6
50	50	50	50	50	50	50	50	50	50
	R R	R	R R	R R	R R	R R	R	R	C
R	R R		R R		R	R R			R R
R R									R
R	+								
R R									
							R R	R R	R R
C C	C C	C C	+	R R	R R	R R	C C	C C	C
							R R	R R	R R
						R R			
							R R		R R
R R		R R				R R		R R	R R
		+	R			R R	R R	R R	
R R		R R	R R				R	R R	R R
					R R			R R	
			R R	R R		R R			
							R R	R R	R R
R R	+		+	R	R	+	R	+	R
			R R	R R		R R			
R R				R R	R R	R R	+	R R	R R
R R	R R		R R	R R	R R	R R	R	C	C
R	R	+	+	R	+	R			
								R	
							R		R R
							R	R R	R
							R R		
R		R R	R R						
						R	R	R	R
							R	R	+
R R				R	R		R R		
	R R			R R	R R				
							C C	R R	R R
R R			R R	R R	R R				
R		R R				R			
R									
				R R					
						R R			
			R R			R R			
R R			R R			R R			
					R R	R R			
						R R			
				+	R R	+			
	R R						R	R	R
							R R	R R	

E. 103선 부유생물 조사성적

Plankton Data, Line 103, 1932

Month	April			June		
Station	04	07	09	05	07	08
Date	1	1	1	23	23	23
Time	2335	1900	1440	2030	1735	1525
Biomass(mg/m³)	46. 4	65. 2	279	117. 0	106. 7	75. 3
Collected depth	50	50	50	50	50	50
Zooplankton						
Calanus finmarchicus	R	+	C	R	R	+
Calanus tenuicornis	R. R	R R	R		R R	R R
Calanus minor						
Eucalanus elongatus						
Eucalanus attenuatus		R R			R R	
Eucalanus subtenuis	R R					
Mecynocera clausi						R R
Paracalanus parvus	R	R	C C	C	C C	C C
Clausocalanus furcatus						
Pseudocalanus elongatus				C	+	+
Euchaeta marina				R R		
Metridia longa				R R		
Metridia lucens	R R	R R	R R			
Labidocera detruncata						
Acartia clausi						
Candacia bipinnata					R R	
Oithona plumifera	+	+	R	R R	+	+
Oithona similis	R R	R R	R R			
Oncaea venusta	R R	R R				
Corycaeus sp	R R				R R	R
Copepoda sp	C	C	C			
Calanoides sp						
Nauplius stage					R R	
Zoea stage				R R		
Amphipoda sp				R	R	+
Euphausia sp				R R		
Nyctiphanes australis						
Mysis stage					R R	
Sagitta delicata	R R	R R	R R		R R	
Sagitta sp				R R		
Evadne tergestina						
Conchoecia sp						
Oikopleura fusiformis	R R	R R	R R			
Oikopleura longicauda				R R	+	R
Oikopleura microstoma	R R					
Oikopleura sp			R R			
Bracyscelus latipes						
Bracyscelus larva	R R	R R	R R			
Salpa sp					R R	
Pyrocystis noctiluca						
Pelagic egg					R	

July			November		
04	06	08	04	06	08
31	31	31	18	18	18
2030	1800	1310	2105	2339	1915
27.5	26.2	119.3	96.7	66.4	71.6
50	50	50	50	50	50
+	R R	C	C		R
+	R R		R R	R R	R R
				R R	R R
	R R		R R		
C C	C C	C C	C C	C C	C C
					R R
	R R	R R	R R	R R	
			R	C	R
	R R				
R	+	R R			R
R R	+	R R	R R	+	+
	R R		R		
		R R	R R		
+	+	R R	R	R R	R
					R R
			R R	R R	R R
			R	R R	R R
			R R	R R	R R
	R	R R	R R	R R	R R
			R R	R	R R
+	R	R R			
			R R	R R	R R
			R	R	R
R R	R R	R R			
+	R R	R R			
	R R	R			
R R			R R	R R	+
			R R	R R	R R

F. 102선 부유생물 조사성적

Plankton Data, Line 102 1962

Month	March			April			June		
Station	04	06	08	05	07	09	04	05	07
Date	1	1	1	5	6	6	23	23	23
Time	2035	0545	0900	1150	1400	1615	0630	0625	0940
Biomass(mg/m³)		34.4	8.7	306.2	127.0	103.2	67.7	91.7	79.1
Collected depth	50	50	50	50	50	50	50	50	50
Zoop ankton									
Calanus finmarchicus	+		R R	C			R	R	R R
Calanus cristatus									
Calanus hyperboreus									
Calanus gracilis									
Calanus minor									
Calanus helgolandicus									
Calanus vulgaris									
Calanus tenuicornis	R R	R	R R	R R			R R	R	R
Calanus sp									
Eucalanus crassus									
Eucalanus elongatus									
Eucalanus subtenuis			R R						
Paracalanus parvus	R R	+	C	+			C C	C C	C C
Calocalanus pavo									
Clausocalanus arcuicornis								+	R R
Ciausocalanus furcatus									
Psedocalanus elongatus							+	+	R R
Euchaeta marina							R R	R R	
Euchaeta sp									
Centropages hamatus				R R					
Metridia lucens	R R	R	R R						
Metridia longa							R R		
Candacia armata									
Candacia bipinnata							R R	R R	R R
Candacia sp				R R					
Labidocera japonicus									
Labidocera detruncata									
Acartia clausi							R R	R R	
Acartia centrura									
Acartia spincauda									
Acartia sp									
Oithona nana			R R					R R	C
Oithona plumifera	C C		+	R					
Oithona similis	R	R R	R	R R					
Setella gracilis									
Clypridina hilgendorfii									
Oncaea venusta			R R						
Corycaeus sp	R R						R R	R R	R R
Evadne tergestina									
Conchoecia sp									
Copepoda nauplius					C	C C			
Copepoda sp	C	C C	+	+					
Euphausia sp							R R		
Nyctiphanes australis									
Oikopleura fusiformis									
Oikopleura longicauda							+	C	+
Oikopleura sp			R R						
Atlanta sp									

July			October						November		
04	06	08	05	06	07	08	09	10	04	07	09
30	31	31	8	8	8	8	8	8	14	18	—
0915	0335	0840	1455	1445	1600	1745	1950	2155	1359	1044	0. 27
8. 7	22. 4	53. 0	40. 2	20. 3	26. 0	20. 3	37. 6	208. 0	114. 3	45. 2	79. 8
50	50	50	50	50	50	50	50	50	50	—	—
	R R	R	R	+	+	+	+	R	C	R R	R
	R R		R R						R R		
											R R
			R R	R	R R	R R					R R
	R R	R R		R R		R R	R R	R R R R	R R		R R
									R R	R R	R R
	C C	C C	R R	R R	R	R	R	R R	C C	C C	C C
									R R		R R
										R R	R R
		R R	R R						R R		R R
				R R							
	R R					R R	R	R R			
								R R			
							R R				R R
R R		R R	R R	R R	R R	R R	R R	R R	R R	R R	R R
			R R								
					R R			R R			
						R R				R R	R R
R R	R R	R R	+	+	+	R	R	+	C	+	R R
									R R		
						R R					
							R R				
R	R R R R	R R	R R R	R R R	R R	R R	R R R R	R R	R	+	R
											R R
C C	C	+	+	R	R	+	+	C			
									R R		R R
			R R	R R							
						R R	R R			R	R R
			R R	R R	R R	R R	R R	R			

Month	March			April			June		
Station	04	06	08	05	07	09	04	05	07
Date	1	1	1	5	6	6	23	23	23
Time	2035	0545	0900	1150	1400	1615	0630	0625	0940
Biomass(mg/m^3)	—	34.4	8.7	306.2	127.0	103.2	67.7	91.7	79.1
Collected depth	50	50	50	50	50	50	50	50	50
Zooplankton									
Amphipoda sp							+	R	R
Brachyscelus latipes									
Mysis larva									
Zoea larva							R	R	
Brachyscelus larva	R	R	R	R	R				
Balanus larvs									
Euphausia larva				R	R				
Nauplius larva								R	R
Paracalanus larva									
Gastropoda larva		R	R	R					
Pelagic egg									
Ceratium intermedium				R	R				
Ceratium sp									R
Sagitta delicata									
Sagitta sp									

July			October						November		
04	06	08	05	06	07	08	09	10	04	07	09
30	31	31	8	8	8	8	8	8	14	18	—
0915	0335	0840	1455	1445	1600	1745	1950	2155	1359	1044	0.72
0. 7	22. 4	53. 0	40. 2	20. 3	26. 0	20. 3	37. 6	208. 0	114. 3	45. 2	79. 8
50	50	50	50	50	50	50	50	50	50	—	—
	R R	R R					R R	+	R R	R R	R R
									R R	R R	R R R R
				R R							
			R R	R R	R	R	R R R	R R	R R	R R	R R
			R R	R R	R R				C	C	R
			R	R R	R R	R R	R R	R R	R	+ R R	R R R R

G. 209 선 부유생물 조사성적

Plankton Data, Line 209, 1962

Month	February			April			June		
Station	04	06	08	04	06	08	04	05	07
Date	1	28	28	1	4	13	19	18	18
Time	0144	2248	1823	0440	0145	2220	0030	2330	1940
Biomass(mg/m^3)				86.6	40.4	93.0	18.8	25.0	15.0
Collected depth	50	50	50	50	50	50	50	50	50
Zooplankton									
Calanus finmarchicus	R	+	C C	R R	R	R R	+	R	+
Calanus tenuicornis	R R	R R	R R						
Calanus vulgaris			+						
Calanus gracilis						R			
Calanus sp									
Eucalanus attenuatus	R R		R R						
Eucalanus elongatus								R R	
Mecynocera clausi							R R		
Paracalanus parvus	+	+	+	+	C C	C C	C	C	C
Calocalanus pavo									
Pseudocalanus elongatus							R R	R	
Euchaeta marina	R R		R R		R R				
Euchaeta sp									
Centropages kröyeri		R R							
Centropages bradyi			R R						
Centropages sp			R R						
Temora stylifera									
Metridia longa							+	R	
Metridia lucens	R R	R R			R R	R R			
Candacia typicus				R R	R R				
Acartia clausi								R R	
Acartia danae									
Acartia spincauda									
Acartia sp									
Oithona nana			R R		R R				
Oithona plumifera	R R	R R	R			R R	+	R	R
Oithona similis	R	R R	+	R R	R R				
Oithona sp									
Oncaea venusta	R R	R R	R R			R R			
Corycaeus sp	R R	R R	R R		R R		R R	R R	R R
Settella gracilis									
Sapphirina angusta									
Evadne tergestina									
Penilia schmackeri									
Copepoda sp	C	+	C	C C	+	+			
Euphausia pellucida	R R			R R					
Euphausia sp							R R		
Nyctiphanes australis	R R	R	R R	R R	R R	R R			
Lucifer raynaudii									
Brachyscelus latipes									
Amphipoda sp							R	R R	+
Oikopleura fusiformis	R R		R R						
Oikopleura longicauda							R		R R
Oikopleura sp									
Salpa sp								R R	+
Pegea confoederata				R R		R R			
Copepoda larva						R R			
Brachyscelus larva	R R	R R	R R			R R			
Brachyura larva	R R		R R						
Limacina larva									
Macrura larva									

August			October					November	
04	06	08	05	06	07	08	09	04	06
10	10	28	8	8	8	7	7	13	13
0424	0650	0600	0420	0255	0110	2310	2110	2355	2130
—	46. 4	8. 8	65. 2	58. 8	43. 8	46. 4	119. 5	75. 4	64. 0
50	50	50	50	50	50	50	50	50	50
	R		R R	+	+	R R	+		R R
R R	C			R R	R		R R		
				+					
	R R								
									R R
C	C C	+	+	R R	R R	R R	R	C	C C
					R R		R R		
	R R				R R		R R		
				R R					
			R R						
	R R	R R	R R		R R				R R
		R R							
			R R						R
R	R R	R R	+	R R	R R		R R		R R
							R R		
		+	R R	R R	R R	C C	R	R	R R
		R R	R R	R R	R R	R R	R R	C	+
					R R				
				R R			R R		
R R			R	R R					
R R									
C		C	+	+	C	R R	+		
									R R
		R R					R R		
	R R								
								R I	R R
							R R		
	R		R						
									R
						+			
	R R								

Month	February			April			June		
Station	04	06	08	04	06	08	04	05	07
Date	1	28	28	1	4	31	19	18	18
Time	0144	2248	1823	0440	0145	2220	0030	2330	1940
Biomass(mg/m³)	—	—	—	86.6	40.4	93.0	18.8	25.0	15.0
Collected depth	50	50	50	50	50	50	50	50	50
Zooplankton									
Mysis larva									
Nauplius larva									
Paracalanus larva		R R	R R			R R			
Pelagic egg				R R			R		+
Euterpe acutifroms									
Diphyes sp									
Ceratium sp									
Muggiaea atlantica		R R							
Obelia geniculata		R R							
Sagitta delicata			R R					R R	
Sagitta sp	R R							R R	

August			October					November	
04	06	08	05	06	07	08	09	04	06
10	10	28	8	8	8	7	7	13	13
0424	0650	0600	0420	0255	0110	2310	2110	2355	2130
	46. 4	8. 8	65. 2	58. 8	43. 8	46. 4	119. 5	75. 4	64. 0
50	50	50	50	50	50	50	50	50	50
									R R
									R R
	R R	R R	R R		R R				
			R R						
							R R	C	
									R
	R R		R R	R R	R R		R R		

H. 208선 부유생물 조사성적

Plankton Data, Line 208, 1962

Month	January			February			March	
Station	01	03	05	01	03	05	01	03
Date	31	1	1	25	28	28	31	31
Time	0735	0810	1110	0710	1045	1315	0645	0900
Biomass(mg/m³)	—	—	—	3.8	81.6	88.2	37.6	272.0
Collected depth	50	50	50	50	50	50	50	50
Zooplankton								
Calanus finmarchicus	+	R R	+	R R	R	R	R	
Calanus tenuicornis		R R				R R		
Calanus nauplius								C C
Calanus helgolandicus								
Calanus minor								
Calanus sp								
Undinula darwinii								
Eucalanus attenuatus		R R						
Eucalanus subtenuis								
Eucalanus tenuis								
Eucalanus mucronatus								
Eucalanus crassus								
Eucalanus sp								
Mecynocera clausi								
Rhincalanus cornutus		R R						
Paracalanus parvus	+	C C	+	R R	R R	R R	R R	+
Calanus pavo								
Clausocalanus furcatus								
Clausocalanus arcuicornis								
Pseudocalanus elongatus								
Euchaeta marina	R R	R R					R R	
Euchaeta sp								
Scolecithrix danae								
Scolecithrix bradyi								
Centropages kröyeri					R R		R R	R R
Centropages hamatus								
Centropages sp						R R		
Temora turbinata								
Metridia lucens								
Candacia armata		R R						
Candacia bipinnata								
Candacia elongatus								
Candacia sp								
Acartia clausi				R R				
Acartia danae								
Oithona nana							R R	
Oithona plumifera	R	R	+	R R			R R	
Oithona similis			R R		R R	R	C	+
Setella gracilis								
Oncaea media								
Oncaea venusta	R	R R	R R	R R	R R	R R	R R	
Oncaea conifera								
Corycaeus venustus								
Corycaeus sp	R R	R R	R	R	R R	R R	R R	R R
Sapphirina angusta								
Sapphirina sp								
Evadne tergestina							R R	
Evadne Nordmanni								
Conchoecia sp	R R	R R			R R	R R		
Copepoda sp	+	+	+	C	+	C	C	

May								
05	07	14	01	02	03	04	05	06	12	13
31	31	31	18	18	18	18	18	18	18	18
0205	1505	1840	0541	0750	0808	0942	1055	1215	1410	1530
81.6	—	—	143.4	17.5	40.0	31.7	32.5	17.5	22.4	122.2
50	50	50	50	50	50	50	50	50	50	50
+	R	R R R R	+	R R	R		R R		R	R
	R R					R R				R R
R R	R R		C	+	C	C	C	C	C	C
R R	R R		R R	+		C		+	R	R
	R R									
R R						R R				
	R R	R R					R R			
R R							R R		R R	
	R R									
R R C	R R +	R R +	R	R	R R	R R R R	R R	+	R	R R
R R					R R	R R				
R R	R R	R R			R R R R		R R	R R	R R	
	R R						R R		R R	R R
+	+	+					R R	R R	R R	

Month	June		July				
Station	01	05	01	04	06	01	02
Date	18	18	28	28	28	6	6
Time	0545	1040	0725	1040	1410	0745	0845
Biomass(mg/m³)	0. 6	17. 5	—	33. 8	18. 8	46. 4	65. 2
Collected depth	50	50	50	50	50	50	50
Zooplankton							
Calanus finmarchicus	C C		R R		R R		
Calanus tenuicornis			R R				
Calanus nauplius							
Calanus helgolandicus							
Calanus minor					R R		
Calanus sp						R R	
Undinula darwinii							
Eucalanus attenuatus				R R			
Eucalanus subtenuis							
Eucalanus tenuis							
Eucalanus mucronatus							
Eucalanus crasssus							
Eucalanus sp							
Mecynocera clausi							
Rhincalanus cornutus							
Paracalanus parvus	R	+	C	R	+		
Calocalanus pavo							
Clausocalanus furcatus							
Clausocalanus arcuicornis							
Pseudocalanus elongatus	R R						
Euchaeta marina	R R			R R	R R		
Euchaeta sp							
Scolecithrix danae							
Scolecithrix bradyi							
Centropages kröyeri							
Centropages hamatus			R R				
Centropages sp							
Temora turbinata							
Meridia lucens							
Candacia armata					R R		
Candaeia bipinnata							
Candacia elongatus							
Candacia sp							
Acartia clausi		R R		C			
Acartia danae						R R	R R
Oitona nana						R	
Oi hona plumifera	R R	R R	R R	R R	R R		
Oithona similis		R R			R R		
Setella gracilis					R R		
Oncaea media							
Oncaea venusta				R R	R		
Oncaea conifera							
Corycaeus venustus							
Corycaeus sp	R R		R R	+	R R	R	
Sapphirina angusta							
Sapphirina sp							
Evadne tergestina							
Evadne Nordmanni							
Conchoecia sp							
Copepoda sp			+		R R		C

October					November			December		
03	04	05	06	07	01	03	05	01	02	05
7	7	7	7	7	13	13	13	29	31	31
1305	1420	1530	1643	1755	0638	1010	1238	1035	0740	1215
139.8	136.0	72.8	84.0	—	70.3	100.4	131.0	30.0	80.1	52.6
50	50	50	50	50	50	50	50	50	50	50
+	+	+	+	+	+		R R			
					R	R R	R R			
						R R	R R			
							R R	R R		
				R R						
						R R	R R		R R	R R
					R R	R R	R R			
		R R	R	R R	C	+	+	C C	C C	C C
R R			R R			R R				
					R R	R R	R R			R R
						R R				
R R		R R	R R	R R	R R					
						R	R			
						R R	R R			
			R R							
					R R	R R				
R R					R R	R R	R R			R R
		R R								
R R	R R	+	R	+	R	R	R R	+	+	+
		R R		R R		R R				R R
+	+	R	+	+	R	R	+		R	R
			R R							
R	R R	R R	R	R R	R R	R	R R	R	R	+
	R R									
		R R					R R			
	R R									
+	+	+	R	R R						

Month	January			February			March	
Station	01	03	05	01	03	05	01	03
Date	31	1	1	25	28	28	31	31
Time	0735	0810	1110	0710	1045	1315	0645	0900
Biomass(mg/m³)	—	—	—	3.8	81.6	88.2	37.6	272.0
Collected depth	50	50	50	50	50	50	50	50
Zooplankton								
Euphausia pellucida								
Euphausia sp								
Fritillaria sp								
Lucifer typus								
Lucifer raynaudii								
Lucifer sp								
Nyctiphanes australis		R R		R R	C	R	R	R R
Brachyscelus latipes		R R						
Brachyscelus cruseulum								
Amphipoda sp								
Trypaea australiensis	R R							
Oikopleura dioica								
Oikopleura fusiformis		R R						
Oikopleura longicauda								
Oikopleura sp			R R	R R			R R	R R
Doliolum sp								
Trypaea australiensis	R R							
Salpa sp								
Dolioletta denticulatum								
Dolioletta sp								
Thalia democratica								
Balanus larva				R R				
Bivalves larva								
Centropages larva								
Eucheata larva								
Euphausia larva								
Lingula larva								
Paracalanus larva		R R	R R		R		+	+
Thalassinid larva								
Mysis larva								
Zoea larva								
Pelagic egg				+	R R			C
Anchavy egg								
Polychaeta sp								
Hexadanche sp								
Abyla haecker								
Pyrocystis noctiluca								
Globigerina bulloides								
Ceratium gravidum					R R			
Ceratium fusus								
Ceratium intermedium								R R
Ceratium trichoceros								
C. lunula fo brachyceros								
Mugg'aea atlantica		R R	R R		R R			
Obelia haeckeli								
Sagitta delicata			R R	R R			R R	
Sagitta enflata								
Sagitta sp						R R		
Atlanta lesueuri								
Polychaeta sp		R R		R R				
Creseis virgula virgula								

05	07	14
31	31	31
0705	1505	1840
81.6	—	—
50	50	50

May							
01	02	03	04	05	06	12	13
18	18	18	18	18	18	18	18
0541	0750	0808	0942	1055	1215	1410	1530
143.4	17.5	40.0	31.7	32.5	17.5	22.4	122.2
50	50	50	50	50	50	50	50

R R R R

C R

R R + R R R R R R R R

R R R R R R R R R R R R

R R R R R R R R R R

R R

R R R R R R R R

R R R R R R R R R R R R

Month	June		July				
Station	01	05	01	04	06	01	02
Date	18	18	28	28	28	6	6
Time	0545	1040	0725	1040	1410	0745	0843
Biomass(mg/m^3)	0.6	17.5	—	33.8	18.8	46.4	65.2
Collected depth	50	50	50	50	50	50	50
Zooplankton							
Euphausia pellucida							
Euphausia sp	R R		R R	R R	+		
Fritillaria sp							
Lucifer typus							
Lucifer raynaudii				R R	R R		
Lucifer sp							
Nyctiphanes australis				R R	R R	R R	
Brachyscelus latipes				R			
Brachyscelus cruseulum							
Amphipoda sp	+						
Trypaea australiensis							
Oikopleura dioica							R R
Oikopleura fusiformis						R	
Oikopleura longicauda							
Oikopleura sp			+		R		
Doliolum sp							
Trypaea australiensis							
Salpa sp							
Dolioletta denticulatum							
Dolioletta sp							
Thalia democratica							
Balanus larva					R R		
Bivalves larva							
Centropages larva							
Euchaeta larva							
Euphausia larva							
Lingula larva							
Paracalanus larva			R R			R R	
Thalassinind larva			R R				
Mysis larva		R R					
Zoea larva		C					
Pelagic egg		C	C	C		R	R R
Anchavy egg							
Polychaeta sp							
Hexadanche sp							
Abyla haeckeri							
Pyrocystis noctiluca		+			R		
Globigerina bulloides							
Ceratium gravidum							
Ceratium fusus							R R
Ceratium intermedium							
Ceratium trichoceros					R R		
C. lunula fo brachyceros							
Muggiaea atlantica							
Obelia haeckeli				R R			
Sagitta delicata		+					
Sagitta enflata							
Sagitta sp				R R	R R		
Atlanta lesueuri							
Polychaeta sp							
Creseis virgula virgula							

October					November			December		
03	04	05	06	07	01	03	05	01	02	05
7	7	7	7	7	13	13	13	29	31	31
1305	1420	1530	1643	1755	0638	1010	1238	1035	0740	1215
139.8	136.0	72.8	84.0	—	70.3	100.4	131.0	30.0	80.1	52.6
50	50	50	50	50	50	50	50	50	50	50
		R R			R R					
R R							R R			
							R R			
R R		R R								
R R	R R									
		R R								
					R	R R	R R			R R
		R	R R				R R			
	R R		R R							
					R R		R R			
		R R								
	R R									
R R										
	R R									
	R R									
		R R								
	R R				R R	R R	R R		R R	R R
					R R	R R				
					R	R R	R R	R R		+
			R R							
						R R				
			R R							
	R R				R	R R	R R	R	R R	R R
R R					R R	R R	R R			
R R	R R									
							R R			

I. 207 선 부유생물 조사성적

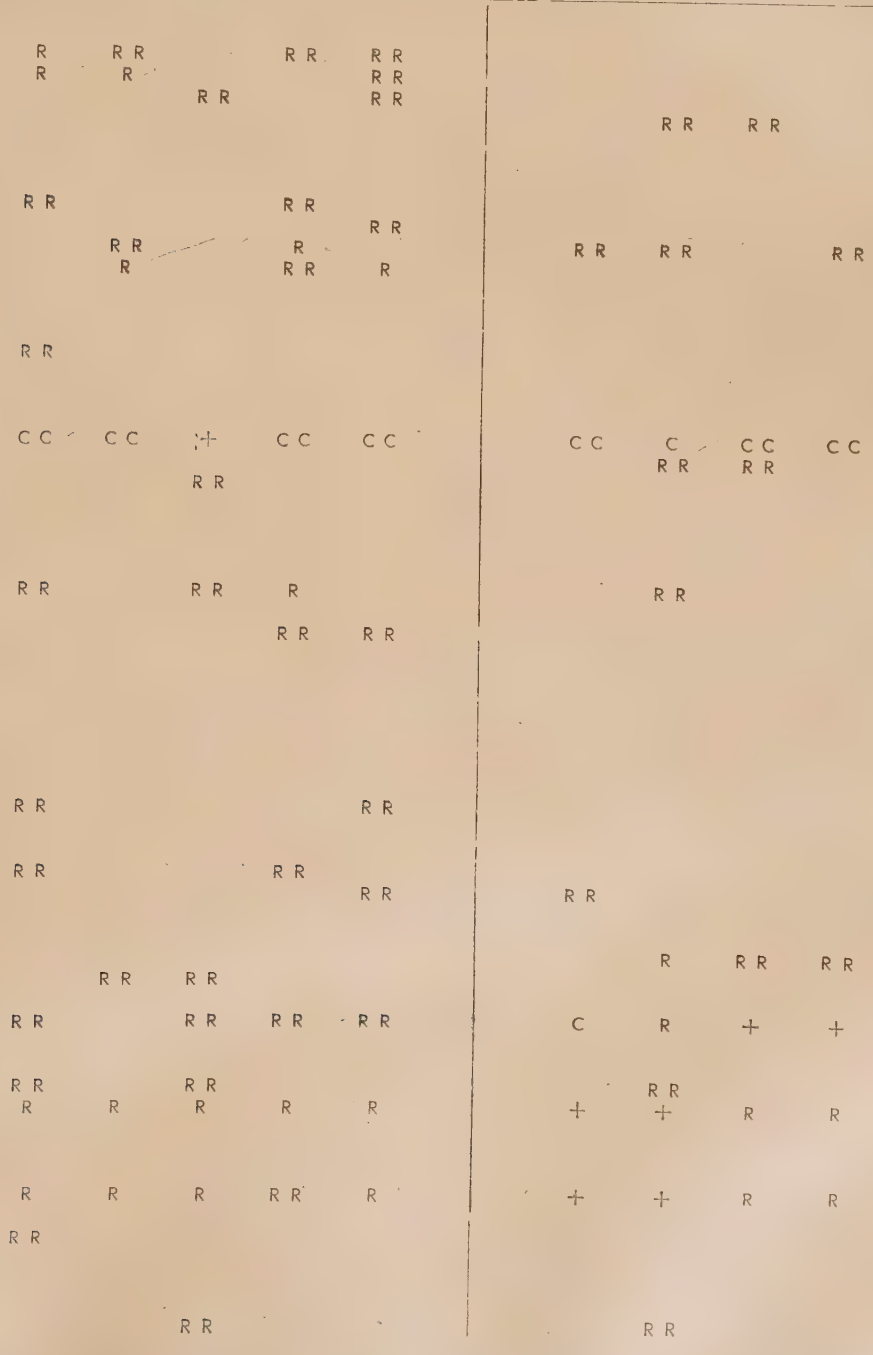
Plankton Data, Line 207, 1962

Month	January			April		
Station	01	03	05	01	03	05
Date	29	29	29	5	5	5
Time	0940	1740	1920	14	1245	1108
Biomass(mg/m³)				21.60	138.0	17.6
Collected depth	50	50	50	50	50	50
Zooplankton						
Calanus finmarchicus	R R	+	+	+		+
Calanus helgolandicus						
Calanus minor						
Calanus tenuicornis	R R		R R			
Calanoides carnatus						
Nanocalanus mina						
Undinula vulgaris		R R				
Undinula darwinii						
Eucalanus attenuatus		R R	R R			
Eucalanus elongatus						
Eucalanus tenuis						
Eucalanus subtenuis						
Eucalanus sp						
Rhincalanus nasutus						R R
Acrocalanus gracilis						
Paracalanus pravus				C	C	C
Calocalanus pavo						
Clausocalanus furcatus						
Clausocalanus intermedium						
Clausocalanus arcuicornis						
Pseudocalanus aculeatus						
Pseudocalanus elongatus						
Euchaeta marina	R	R R	R		R R	+
Euchaeta concinna						
Euchaeta sp						
Centropages abdominalis				R R	R	
Centropages bradyi						
Centropages typicus						
Centropages kröyeri						
Pleuromma gracilis						
Candacia bipinnata					R R	R
Candacia amata	R R	R R				
Candacia longimana		R R				
Candacia norvegica						
Candacia sp						
Lucicutia flavicornis			R R			
Acartia clausi						
Acartia danae						
Oithona nana			R R			
Oithona plumifera	R	R R	R	R R	R	R R
Oncaea venusta	R R	R R	R R			R R
Clytemnestra scutellata	R R					
Corycaeus venusta				R R	R R	
Corycaeus sp	R R	R	R R			
Sapphirina angusta						
Sapphirina sp						R R
Evadne tergestina						
Ostracoda sp				R R		
Conchoecia sp	R	R R	R R			

			May			
01	02	03	04	05	07	03
17	17	17	17	17	17	17
0715	0803	0818	0940	1025	1150	1315
28. 8	103. 2	16. 2	17. 6	53. 0	76. 0	163
50	50	05	05	50	50	50
+	+		R R			
		R R				
	R R					
C	C	+	R R	+	C C	C
r	R	C	+	C	C	C
R R						
			R R			
R R	R R	R	R R		R	R R
				R R		
	R R					R R

Month	July				October			
Station	01	03	05	07	02	03	04	05
Date	27	27	27	27	3	3	3	3
Time	0650	0900	1100	1440	0820	0915	1015	1100
Biomass(mg/m^3)	27. 5	31. 2	26. 2	43. 9	59. 0	50. 0	45. 2	52. 6
Collected depth	50	50	50	50	50	50	50	50
Zooplankton								
Calanus finmarchicus	R R	R R	R R		R R	R R	R R	R R
Calanus helgolandicus								
Calanus minor								
Calanus tenuicornis								
Calanoides carnatus					R R			R R
Nanocalanus mina					R R			R R
Undinula vulgaris					R R	R R		R R
Undinula darwinii							R R	R R
Eucalanus attenuatus							R R	R R
Eucalanus elongatus								
Eucalanus tenuis								
Eucalanus subtenuis			R R	R R				
Eucalanus sp								
Rhincalanus nasutus					R R			
Acrocalanus gracilis					R R	R R	R R	R R
Paracalanus parvus	C C	+	R R	C C	R	R	R	R
Calocalanus pavo				R R				
Clausocalanus furcatus								
Clausocalanus arcuicornis								R R
Pseudocalanus aculeatus						R R	R	R R
Pseudocalanus elongatus					R R	R R		R R
Euchaeta marina	R R	R	R R	R R	+	C	+	+
Euchaeta concinna							R R	
Euchaeta sp								
Centropages abdominalis								
Centropages bradyi							R R	R R
Centropages typicus						R R	R R	R R
Centropages kröyeri							R R	
Pleuromamma gracilis								
Candacia bipinnata								
Candacia armata		R R						
Candacia longimana								
Candacia norvegica								
Candacia sp								
Lucicutia flavicornis								R R
Acartia clausi	R R	R R	R R	R R	R R	R R	R R	R R
Acartia danae					R R	R R	R R	R R
Oithona nana								
Oithona plumifera		R R	R R	R R	+	R R	R R	R R
Microsetella rosea					R R			
Setella gracilis								
Oncaea venusta	R R	R R	+	R R	R R	R R	R R	+
Clytemnestra scutellata								
Corycaeus venusta								
Corycaeus sp	R R	R R	R R	R R		R R		
Sapphirina angusta							R R	R R
Sapphirina sp				R R				
Evadne tergestina			R R	R R				
Ostracoda sp								
Conchoecia sp								

November					December			
01	02	03	04	05	02	03	04	05
24	24	24	24	24	25	25	25	25
1222	1300	1350	1437	1527	0920	1010	1110	1150
172. 2	66. 5	99. 1	22. 4	171. 3	262. 8	21. 3	42. 6	13. 7
50	50	50	50	50	50	50	50	50



Month	January			April		
Station	01	03	05	01	03	05
Date	29	29	29	5	5	5
Time	0940	1740	1920	14	1245	1108
Biomass(mg/m^3)				216.0	138.0	17.6
Collected depth	50	50	50	50	50	50
Zooplankton						
Copepoda sp	+	C	+			
Euphausia pellucida	R R					
Euphausia sp						R R
Nyctiphanes australis		R R				
Lucifer raynaudii						
Lucifer sp						
Amphiapodas						
Oikopleura longicauda						
Oikopleura sp				R	R R	R R
Dolioletta denticulatum	R R					
Salpa sp						
Pegea sp						
Thalia democratica						
Hyperia promontorii						
Macrurus sp						
Trypaea australiensis	R R	R R				
Brachyscelus latipes						
Euphausia larv				R P	R R	
Mysis larva						
Zoea larva						
Brachyscelus larva		R R				
Balanus larva						
Calanus larva				+	+	
Evadne larva						R R
Megalopa larva						
Macrura larva						
Nauplius larva						
Paracalanus larva						
Thalassinivd larva	R R					
Pelagic egg					R R	
Sagitta delicata						
Sagitta sp	R R					
Obelia geniculata		R R				

			May			
01	02	03	04	05	07	08
17	17	17	17	17	17	17
0715	0803	0818	0940	1025	1150	1315
28. 8	103. 2	16. 2	17. 6	53. 0	76. 0	163
50	50	50	50	50	50	50
	R R					
R R			R R			R R
R R	R R	R	R R	C C	R R	R
		R				R R
			+		R R	C C
	R R					

Month	July				October			
Station	01	03	05	07	02	03	04	05
Date	27	27	27	27	3	3	3	3
Time	0650	0900	1100	1440	0820	0915	1015	1100
Biomass(mg/m^3)	27. 5	31. 2	26. 2	43. 9	59. 0	50. 0	45. 2	52. 6
Collected depth	05	50	50	50	50	50	50	50
Zooplankton								
Copepoda sp	+	+	+	+				
Euphausia pellucida								
Euphausia sp								
Nyctiphanes australis								
Lucifer raynaudii		R R		R R				
Lucifer sp		R R		R R				
Amphipoda sp					R R	R R		R R
Oikopleura longicauda								
Oikopleura sp			R R	R R	R R		R	R R
Dolioletta denticulatum								
Salpa sp		R R						
Pegea sp					R R	R R		
Thalia democratica					R	R	R	R R
Hyperia promontorii	R R							
Macrurus sp		R R						
Trypaea australiensis								
Brachyscelus latipes	R	R	R R	R R				
Euphausia larva								
Mysis larva						R R	R R	R R
Zoea larva								
Brachyscelus larva								
Balanus larva				R R				
Calanus larva								
Evadne larva								
Megalopa larva					R R			
Macrura larva			R R	R R				
Nauplius larva								
Paracalanus larva	R R							
Thalassinid larva								
Pelagic egg				R R				
Pyrocystis noctiluca		R R						
Ceratium massiliens		R R						
Sagitta enflata								R R
Sagitta delicata					R R	R R	R R	R R
Euchaeta marina	R R							
Sagitta sp		R R	R R	R R	R R	R R	R	R R
Obelia geniculata								

November					December			
01	02	03	04	05	02	03	04	05
24	24	24	24	24	25	25	25	25
1222	1300	1350	1437	1527	0920	1010	1110	1150
172.4	66.5	99.1	224.1	171.3	262.8	21.3	42.6	13.7
50	50	50	50	50	50	50	50	50

J. 206선 부유생물 조사성적

Plankton Data, Line 206, 1962

Month	February				March			
Station	01	03	07	09	01	02	03	04
Date	3	3	3	3	6	6	6	6
Time	2135	1910	1545	0920	0900	1124	1544	—
Biomass(mℓ/m³)	110.4	116.8	25.4	79.0	29.2	138.0	73.4	51.2
Collected depth	50	50	50	50	50	50	50	—
Zooplankton								
Calanus finmarchicus	+	+	R	C C	R	+	R R	+
Calanus helgolandicus								
Calanus minor								
Calanus similis								
Canthocalanus povper								
Eucalanus attenuatus	R R	R R	R R					
Eucalanus elongatus								
Eucalanus mucronatus								
Eucalanus sp								
Mecynocera clausi								
Paracalanus parvus	R	R R	R	R	+	+	C	C
Calocalanus pavo								
Clausocalanus furcatus								
Pseudocalanus elongatus					R R			
Pseudocalanus sp	R R	R R		R R				
Euchaeta marina	R	R	R	R R	R R			R R
Euchaeta sp								
Pareuchaeta norvegida	R R							
Scolecithrix danae			R R	R R				
Centropages abdominalis	R R	R R	R R	R R	R	+	R	R R
Centropages bradyi								
Temora discaudata								
Pleuromamma sp								
Candacia bipinnata					R			
Candacia armata								
Candacia sp								
Acartia clausi								
Oithona nana		R						
Oithona plumifera	R	R	R	R R			R R	R R
Oithona similis	R R		R R	R R				
Setella gracilis		R R						
Oncaea venusta	R R	R R	R R	R R				
Oncaea sp								
Corycaeus venustus					R	R R	R R	
Corycaeus sp	R R	R R	R R	+				
Sapphirina angusta								
Sapphirina sp								
Centropages furcatus								
Centropages kröyeri								
Centropages sp								
Conchoecia sp								
Copepoda sp	C	+	C	C C				
Euphausia sp								
Lucifer raynaudii	R R							
Nyctiphanes australis								
Amphipoda sp					R R			R R
Brachyscelus latipes								
Gastrosaccus indicus								
Oxycephalus porcellus								
Trypaea anstralieusis		R R		R R				
Oikopleura dioica		R R						

April		May				September			November		
01	03	01	03	04	07	01	02	03	01	02	04
9	9	20	20	20	20	30	1	1	24	24	24
0705	0920	1735	1530	1430	1205	0855	0950	1110	2349	2240	2014
64. 2	38. 4	37. 0	106. 7	18. 8	41. 3	61. 5				141. 0	145. 9
50	50	50	50	50	50	50	50	50	50	50	50
+	+	C C	R R +	R R	R	R	R R		R +	R R	R R R R R R
					R R	R R					
					R R				R R	R R	R R
						R R		R R			
R R	R R	C	C	C	C C	R R R R		R R	C C	C C	C
						R R	R R		R R		R R
	R R	+	R		+	R R		R R	+	R	R
							R R				
								R R			
								R R		R R	
R R	R R										R R
				R R		R R			R R		
R R	R R	+			+	R R			R R	R R	R ∝
						R	C R R	R R	R	R	R
R R	R R	R R			1	R R			R R	R R	R R
						R R R R R R	R R	R R R R			
R	+									R R	
+	R R				R R				R R	R R	R R
		R	C C	C C	R	R R	R R R R R	R R	R R R R	R R R R	R R R R
	R R										

Month	February				March			
Station	01	03	07	09	01	02	03	04
Date	3	3	3	3	6	6	6	6
Time	2135	1910	1545	0920	0900	1124	1541	—
Biomass(mg/m³)	110. 4	116. 8	25. 4	79. 0	29. 2	138. 0	73. 4	51. 2
Collected depth	50	50	50	50	50	50	50	—
Zooplankton								
Oikopleura fusiformis	R R	R R					R R	R R
Oikopleura longicauda								
Oikopleura sp	R R						R R	R
Salpa sp								
Pegea confoederata								
Pegea sp								
Thalia democratica								
Parathemisto sp								R R
Copepoda larva					R			
Brachyselus larva			R R					
Calanus larva							C	R
Euchaeta larva								
Paracalanus larva								
Euphausia larva			R R				R R	R R
Lingula larva								
Magelona larva								
Mysis stage								
Nauplius stage								
Zoea stage								
Pelagic egg								
Ceratium tripos								
Muggiaea atlantica		R R	R R					
Sagitta delicata								
Sagitta enflata								
Sagitta sp								
Creceis virgula virgula								

April		May				September			November		
01	03	01	03	04	07	01	02	03	01	02	04
9	9	20	20	20	20	30	1	1	24	24	24
0705	0920	1735	1530	1430	1205	0855	0950	1110	2349	2240	2014
64. 2	38. 4	37. 0	106. 7	18. 8	41. 3	61. 5	—	—	—	141. 0	145. 9
50	50	50	50	50	50	50	50	50	50	50	50
R R											
				R R					R R	R R	R R
			R		R R			R R			
				R				C			
				+							
						R R					
R R	R										
	R R										
	R R										
R	+										
							R R				
							R R		R R	R R	R R
									R R		
R R	R R							R R		R R	R R
R R											
									R	R	R R
					R R						
			R R		R R	R	R R	R R		R R	R R
										R R	R R

K. 205선 부유생물 조사성적

Plankton Data, Line 205, 1962

Month	April				May			
Station	01	03	05	09	01	03	05	08
Date	11	11	11	11	22	22	22	22
Time	0555	0805	1128	1515	0653	0945	1350	1615
Biomass(mg/m³)	93.0	74.0	80	22.2	69.0	25.0	75.3	18.8
Collected depth	50	50	50	50	50	50	50	50
Zooplankton								
Calanus finmarchicus	C	+	+	C C				
Calanus helgolandicus					C C	+		R R
Calanus tenuicornis							R R	R R
Calanus vulgaris								
Calanoides carnatus								
Eucalanus attenuatus							R R	
Eucalanus crassus			R R					
Ecalanus elongatus								
Eucalanus subtenuis		R R	R R					
Paracalanus parvus	R R	R R	R R	R R	C	C C	C	C
Clausocalanus arcuicornis								R R
Clausocalanus furcatus								
Euchaeta bipinata								
Euchaeta marina	R R	+	R R	R	C	+	R	R R
Euchaeta sp								
Scolecithrix bradyi			R R					
Centropages kröyeri	R R	R R						
Centropages typicus	R R	R R						
Pleuromamma agracilis							R R	R R
Metridia longa								R R
Candacia bipinnata							R R	R R
Candacia armata		R R	R R					
Candacia norvegica								
Pontella sp								
Acartia clausi								
Oithona plumifera	R R	+	R R	R R	C	C	R R	R
Oithona similis		R R	R R	R R				
Oncaea venusta							R R	R R
Corycaeus venustus						R R		
Corycaeus sp	R R	R R	R R	R R	R	R R	R R	
Copepoda sp	R	+	+					
Conchoecia sp		R R		R R				
Euphausia sp								
Nyctiphanes australis	R R	R R		+				
Amphipoda sp					R	R	+	R R
Squilla sp								
Oikopleura dioica	R R							
Oikopleura longicauda						R R	R	
Oikopleura sp	R R							
Cyclosalpa sp								
Salpa sp						R R	R	C
Pyrocystis noctiluca			R R					
Thalia democratica								
Muggiaea atlantica				R R				
Diphyes sp								
Fritillaria sp		R R						
Lucifer sp								
Copepoda larva	+	R R	R R	+				
Zoea stage								
Brachyscelus larva		R R	R R	R R				

September					December			
01	02	03	04	05	01	03	05	07
29	29	29	29	29	10	10	10	10
0715	0825	0925	1110	1245	1035	1255	—	1900
213.9	573.0	571.8	87.2	239	1.2	71.6	40.1	72.8
50	50	50	50	50	50	50	50	50
	R	R	C	R	R			
C								
						R R	R R	
					R R		R	
						R	R	R
					C C	C C	C C	C
								R R
						R		
			R R	+	R R	R R		
							R R	R R
			R R					R R
						R R		R R
					R R	R R	R R	R
					R R	R	R	R R
						R R		
					C	R	R	R R
					R R	R R		
				C	R R		R R	R R
					R R	R R		R R
				R R		R R	R R	R R
C	C							
C	+	+	R	+				
	R R		R	R				
	R R	R	R R					

Month	April				May			
Station	01	03	05	09	01	03	05	08
Date	11	11	11	11	22	22	22	22
Time	0555	0805	1128	1515	0653	0945	1350	1615
Biomass(mg/m^3)	93.0	74.0	80	22.2	69.0	25.0	75.3	18.8
Collected depth	50	50	50	50	50	50	50	50
Zooplankton								
Pelagic egg	R R							
Euchaeta larva	R R	R	R R	+				
Paracalanus larva	R	R R	R R	R R				
Centropages larva	R R							
Noctiluca scintillans			+					
Ceratium intermedium			R R	R R				
Ceratium massiliens								
Ceratium tripos			R R					
Sagitta delicata							R R	
Sagitta sp					R R			

September					December			
01	02	03	04	05	01	03	05	07
29	29	29	29	10	10	10	10	10
0715	0825	0925	1110	1245	1035	1255	—	1900
213.9	573.0	571.8	487.2	239	31.2	71.6	40.1	72.8
50	50	50	50	50	50	50	50	50
				R R				
	R	C	R R	R R	C	R R	R R	
						R R	R R	

L. 204 선 부유생물 조사성적

Plankton Data, Line 204 1962

Month	April			May		September			
Station	04	05	07	04	06	01	03	05	07
Date	12	12	15	25	25	30	30	2	2
Time	1207	0835	1915	1635	1910	1400	1715	0900	1320
Biomass(mg/m³)	174.0	228.5	160.5	43.8	31.3	62.8	7.8	62.8	13.8
Collected depth	50	50	50	50	50	28	40	50	40
Zooplankton									
Calanus finmarchicus	R	R R	R	+	R				R R
Calanus hyperboreus	R R					R R			
Calanus minor							R R		
Calanus sp								R R	
Calanoides carinatus									R R
Undinula darwinii								R R	
Undinula vulgaris						R R		R R	R R
Eucalanus attenuatus							R R		
Eucalanus subcrassus		R R							
Rhincalanus nasutus	R R								
Mecynocera clausi								R R	R R
Paracalanus parvus	C	C C	C	R R	R R	R R	+	R	+
Calocalanus pavo							R R	R R	R R
Clausocalanus arcuicornis								R R	
Clausocalanus furcatus									R R
Pseudocalanus elongatus			R R					R R	R R
Euchaeta marina	R R	+	R R	+	R R			R R	R
Euchaeta sp								R R	
Scolecithrix danae	R R							R R	
Centropages typicus						R R			
Pleuromamma gracilis								R R	
Candacia bipinnata		R R							
Calanopia thompsoni								R R	
Acartia clausi						+	R R	R R	R R
Acartia danae							R R		
Oithona plumifera	R R	R R	+	R	R R			R R	R
Oithona similis				R	C				
Setella gracilis								R R	
Oncaea venusta					R R			R	R
Corycaeus venustus									R R
Setella sp	R R								
Copepoda sp			R R	C	R				
Euphausia sp			R R			R R			
Amphipoda sp	R R	R R	R					R R	R R
Oikopleura longicauda						+		R R	R
Doliolum sp								R R	R R
Dolioletta denticulatum							+	R R	
Salpa sp	+			R R	R R	+	+	R	R
Pegea cofaederata				R R	R R				
Thalia democratica							R R	R R	
Copepoda larva				R R					
Mysis stage								R R	
Brachyscelus larva				R R	+				
Euchaeta larva				R R	R R				
Zoea stage							R R		
Sagitta delicata				R R		R	R	R R	R R
Sagitta sp					R R	R R	R R	R R	
Creseis virgula virgula									R R
Muggiaea atlantica				R R					

M. 203 선 부유생물 조사성적

Plankton Data, Line 203, 1962

Month	April	June		October		
Station	05	01	03	01	03	05
Date	16	4	4	6	6	3
Time	1050	1705	2055	1640	1315	1000
Biomass(mg/m³)	213.5	33.8	11.2	12.5	60.2	28.8
Collected depth	50	50	50	50	50	50
Zooplankton						
Calanus finmarchicus	C	C	+			
Calanus hyperboreus					R R	R R
Calanoides sp				R R		
Undinula vulgris						R R
Eucalanus sp						R R
Mecynocera clausi					R R	
Mecynocera sp				R R		
Paracalaus parvus	C			+	R	C
Calocalanus pavo					R R	
Clausocalanus furcatus					R R	R R
Euchaeta marina	C C	R R	R R	R R	R	R R
Candacia sp					R R	
Labidocera acuta						R R
Calanodia thompsoni					R R	
Acartia clausi		R R	R R	R R	R R	
Oithona plumifera	+	+	+	R R	R	R R
Oithona similis		R R	R			R R
Oithona sp	R R			R	R R	R
Microsetella gracilis						R R
Corycaeus venustus	R R					
Corycaeus sp		R R				
Copepoda sp		+	R R			
Euphausia sp					R R	
Amphipoda sp	R R			R	R R	R R
Oikopleura sp						R R
Doliolum denticulatum						
Salpa sp	+		+	R	R R	
Thalia democratica						R R
Copepoda larva		R R				
Mysis larva				R R	R R	R R
Brachyurat arva		R R				
Brachyscelus larva		R R				
Pelagic egg					R R	
Euchaeta larva		R R	R R			
Scale				R R		
Noctiluca scintillans						R R
Sagitta delicata				R R		R R
Sagitta sp	R R					R R
Creseis virgula virgula				R R	R R	

N. 314 선 부유생물 조사성적

Plankton Data, Line 314, 1962

Month	April					
Station	01	03	07	09	01	02
Date	15	16	16	16	2	2
Time	1500	1910	1212	1530	1940	2140
Biomass(mg/m³)	—	—	—	—	—	—
Collected depth	50	50	50	50	50	50
Zooplankton						
Calanus finmarchicus		R	+	R		
Calanus helgolandicus	R					R R
Calanus sp	R R					
Undinula vulgaris					R R	R R
Eucalanus attenuatus		R R				
Eucalanus sp					R R	
Mecynocera clausi					R R	
Acrocalanus garcilis						
Paracalanus parvus	C	C	R	C	C C	R
Clausocalanus arcuicornis						
Clausocalanus furcatus					R R	R
Pseudocalanus elongatus					R R	R R
Euchaeta marina	R	+	C	C	R R	R R
Euchaeta flava		R R				
Euchaeta sp						
Scolecithrix danae						R R
Centropages typicus						R R
Temora sp					R R	
Candacia bipinnata		R R				R R
Candacia sp	R R					
Acartia clausi						R
Acartia danae						
Oithona plumifera						
Setella gracilis					R R	R R
Oncaea venusta	R R		R R			R
Corycaeus venustus				R R		
Corycaeus sp	R R				R	R
Evadne Nordmanni	R					
Sapphirina sp					R R	
Euphausia sp						R R
Lucifer typus						
Amphipoda sp	R R	R R	R R	R R	R R	R R
Oikopleura longicauda					R R	
Oikopleura rufesceus						
Salpa sp	C C					
Dolioletta denticulatum						R R
Thali democratica						
Mysis larva					R R	
Zoea larva					R R	
Nauplius larva						R R
Macrura larva	R R					
Pelagic egg						
Scale						
Trichodesmium sp					R R	
Sagitta delicata					R R	R R
Sagitta sp		R R		R R	R	R R
Creseis virgula virgula					R R	

October					
03	04	05	06	07	08
2	3	3	3	3	3
—	—	—	—	—	—
2345	1820	0545	0009	1235	1430
50	50	50	50	50	50
R	R R			R R	
R R	R R	R R R R	R R	R R	R R
	R R R R R R	R R	R R		R R
C	R	+	+	+ R R	C C
R R	R R	R R R R	R R R R		
R R	R	R R	R		R R
			R R		
R R R R	R R				
R R		R R			
R	R R	C C R R	R R	R	R R
R R R	R R R R	R	R R R R	+	R R
C	R	+	R	R R	R R
C	R	R	R R		R R
R R R R					
R R R R	R R R R R R R	R R R R	R R R R	R R	
			R R	R R	R R
		R R	R R		
R R	R R	R R	R R	R R	R R
R R	R R R R		R R R R		R R
R R R R	R R R R	R R	R R R R	R R R	P R R

O. 313 선 부유생물 조사성적

Plankton Data, Line 313, 1962

Month	April		October		
Station	01	04	01	02	03
Date	16	16	3	3	3
Time	2145	1805	2310	2150	2025
Biomass(mg/m³)	—	—	—	—	—
Collected depth	50	50	50	50	50
Zooplankton					
Calanus finmarchicus	+	+			
Calanus helgolandicus			R R	+	R
Calanus minor					
Undinula vulgaris					R R
Undinula darwinii			R R	R R	
Eucalanus attenuatus				R R	
Eucalanus subcrassus		R R			
Paracalanus parvus		R R	+	C	+
Calocalanuspavo			R R		
Clausocalanus arcuicornis					
Clausocalanus furcatus			R R		
Euchaeta marina	R R	+	+	R	+
Euchaeta sp					
Scolecithrix danae					
Scolecithrix bradyi					
Pleuromamma gracilis				R R	
Metridia longa					
Candacia bipinnata					
Pontella sp			R R		
Acartia clausi			R R	R R	R R
Acartia danae		R R			
Oithona plumifera				R R	R R
Oithona similis	R	R	R R		R R
Setella gracilis					
Oncaea venusta	R R	R R	R R	R R	R R
Corycaeus longistylis					
Corycaeus sp	R R	R R	R R		R R
Sapphirina sp					
Conchoecia sp					
Copepoda sp	C	C			
Fritillaria sp			R R		
Lucifer sp			R R		
Amphipoda sp			R R	R R	R R
Oikopleura rufescens			R		
Oikopleura fusiformis		R R			
Oikopleura longicauda			R R	R R	R R
Oikopleura cophocerca				R R	
Pegea confoederata	R R				
Thalia democratica			R	R R	
Copepoda larva	R R				
Mysis larva			R R	R R	
Bachyscelus larva	R R	R R			
Euchaeta larva	R R	R R			
Euphausia larva			R R		
Paracalanus larva	R R				
Macrura larva					
Zoea stage					
Pelagic egg		R R		R R	
Nyctiphanes australis	R R				
Sagitta delicata				R R	R R
Sagitta sp			R R		R R
Creseis virguia virgula				R R	R R

	December	
04	01	03
3	13	13
1905	0925	1143
—	—	—
50	50	50
R		R R
	R R	
R R	R R	
	R	R
+	R R	R R
R R		
R R		
	R R	R R
+	R	R
		R R
		+
	R R	
		R R
	R R	
	R R	R R
R		
	R R	R R
R		
R R		
	R	R
R R		
R R	R	R
	R R	
	R R	R R
	R R	
R R		R R
	R	R R
	R R	
R R	R R	R R
R R	R R	R R
R R		

P. 312 선 부유생물 조사성적

Plankton Data, Line 312, 1962

Month	April			June			
Station	01	03	05	01	02	03	04
Date	17	17	17	5	5	5	5
Time	0245	0545	0848	1813	0247	0510	1700
Biomass(mg/m^3)	106.7	74.0	127.5	74.0	124.4	131.0	131.0
Collected depth	50	50	50	50	50	50	50
Zooplankton							
Calanus finmarchicus	C C	C	+		C		C C
Calanus helgolandicus				C		C C	
Eucalanus subcrassus	R R						
Rhincalanus cornutus			R R				
Paracalanus parvus	R R	R R	R R	C C	R R	C	R R
Euchaeta marina	R R	R R	R R	R R	R R	R	R R
Centropages typicus							
Pontella sp							
Acartia clausi	R	R R		R	R		R R
Acartia danae							
Oithona plumifera	R R	R R	R R	+	+	+	
Oithona simlis	R	R R	R R				R
Oncaea venusta					R R		
Corycaeus sp	R R	R R	R R	+	R R	R R	R R
Copepoda sp	+	+	R		+		R
Euphausia gracilis							
Euphausia pellucida	R R						
Euphausia sp				R R	R R		
Dolioletta sp							
Lucifer raynaudii	R R						
Thalia democratica							
Amphipoda sp				R R		+	
Oikopleura fusiformis		R R					
Oikopleura longicauda				R R			
Oikopleura sp							
Salpa sp					R		
Copepoda larva	R R	R R	R R				
Mysis larva				R R		R R	
Nauplius larva							
Brachyscelus larva	R R				R R		
Balanus larva							
Euchaeta larva	R R	R R	R R		R R		R R
Paracalanus larva	R R		R		R R		
Pelagic egg		R R	C C		R R		R R
Squilla sp							
Nyctiphanes australis					R R		
Sagitta delicata							
Sagitta sp		R R			R R	R R	

October					December					
05	06	03	05	07	01	02	03	04	05	06
5	5	28	29	29	7	7	7	7	7	7
1413	1047	2125	0045	0355	1040	1200	1340	1520	1700	1900
35.4	79.1	13.2	23.8	—	2.6	20.0	22.4	51.4	—	—
50	50	50	50	50	50	50	50	50	50	50
C	+	C C	C	C						
C	R R	R R	+	C C	C C	C C	C C	C C	C C	C C
R R	R R R R	R R	R R	R R		R R				R R
R	+	R	R	R R	R	R R R R R R	R R R R	R R R	R R R R	R R R R
R R	C +	R R	+	R	C R	+ R	+ +	C + R R	+ +	R + +
	R R	R R	R R	R	+	+	+	+	+	+
				R R		R R				
C					R	R R	R R	R R	+	+
			R R R R							
					R	R R			R R	
+										
R R	R R		R R			R R	R R	R R R R		
	R R	R R		R R						
+		R R						R R		
	R R		R R		R R	R R R	R R	R R	R	+

Q. 311선 부유생물 조사성적

Plankton Data, Line 311, 1962

Month	April			June		
Station	01	03	05	01	03	05
Date	23	19	19	6	8	8
Time	0650	0850	1155	0005	0310	0645
Biomass(mg/m³)	45.3	260.5	82.8	369.3	204.0	26.0
Collected depth	30	50	50	40	50	50
Zooplankton						
Calanus finmarchicus	+	C C	+	C C	C	C
Calanus helgolandicus						
Calanoides carnatus						
Mecynocera clausi						
Paracalanus parvus	R R	R R	R R	R R	R	R R
Psedocalanus elongatus						
Euchaeta marina				R R	R R	R R
Centropages typicus	R R		R R			
Temora sp						
Acartia clausi	R	R R	+	R R	R R	R
Oithona plumifera			+		R	R
Oithona similis	R R	R R	R R	R R	R	R R
Oncaea venusta						
Copepoda sp	R R	R	R R	+	+	+
Euphausia pellucida	R	R R		R R	R R	
Nyctiphanes australis					R R	
Brachyscelus latipes						
Amphipoda sp						
Oikopleura rufescens						
Oikopleura fusiformis			R R			
Oikopleura longicauda						
Oikopleura sp						
Hyperia hydrocophola						
Doliolum denticulatum						
Salpa sp						
Thalia democratica						
Copepoda larva	R	R R	R R			
Brachyscelus larva				R R	R R	R R
Balanus larva						
Euchaeta larva				R R	R R	R R
Ophiopluteus larva						
Paracalanus larva	R R		R R			
Mysis larva						
Nauplius larva						
Zoea larva						
Pelagic egg	R R		+	R R	R	R R
Scale						
Obelia geniculata						
Sagitta delicata		R	R R			
Sagitta sp						

July			October				
04	06	08	01	02	03	04	05
30	29	29	12	12	8	8	8
1025	1604	1235	1215	1035	0345	0135	0005
64.0	28.8	79.1	98.4	101.6	95.4	42.6	81.6
50	50	50	50	50	50	50	50
R	R		+	C	C	C	C
			R R				
					R R		R R
R R	R R	R R	C C			C C	C C
				R R			
			+	R R	R R	R R	R R
						R R	
+	C C	C	R R			+	
R R	R R		R R	+	R R	+	C
	R R						
					R R		R R
R R	R R						
			R R				
R R							
		R R					
			R R	R R		R R	R R
	R R		R R				
				R R			
						R R	
		R R					
						R R	
R R		R R					
					R R		
R R	R R						
R R	R R				R R		
R R							
R							
			R R	R R	R R	R R	
				R R		R R	
						R R	
+	+			C	C		
				R R	R R		
R R							
R R	R R	R R	R	+	+	R	+
R R			R R		R R		

R. 310 선 부유생물 조사성적

Plankton Data, Line 310, 1962

Month	April			July		
Station	01	03	05	03	06	08
Date	24	24	24	30	31	31
Time	0800	1025	1545	1540	2100	2340
Biomass(mg/m³)	109.7	62.7	95.4	—	—	—
Collected depth	20	50	50	50	50	50
Zooplankton						
Calanus finmarchicus	C C	R R	R R		C	C
Calanus helgolandicus						
Mecynocera clausi				R R	R R	
Acrocalanus sp						
Paracalanus parvus		R R	R R		R	R
Paracalanus aculeatus						
Clausocalanus arcuicornis						
Pseudocalanus elongatus						
Euchaeta marina						
Euchaeta sp						
Centropages kröyeri					R R	
Centropages typicus		R R	R R			
Pontella sp						
Acartia clausi	+	R R	C C		R R	R
Acartia danae						
Oithona nana	R R					
Oithona plumifera		R R	R R		R R	R R
Oithona similis	R R	+	R R			
Oncaea venusta						
Copepoda sp	+	+	R	R	R	R
Euphausia parifica						
Euphausia pellucida						R R
Euphausia gracilis					R R	
Nyctiphanes australis				R R		
Plagusia dentipes						
Brachyscelus latipes						R R
Amphipoda sp						
Oikopleura fusiformis			R R			
Oikopleura sp				R R		
Hyperia hydrocophola						C C
Dolioletta sp					R R	
Mysis larva						
Nauplius larva						
Fish larva					R R	
Paracalanus larva	R R	R R	R			
Sagitta larva				C C		
Ophiopluteus larva				C		
Euphausia larva						
Copepoda larva	R R	R R	R R			
Brachyscelus larva		R R	R R			
Pelagic egg		+				
Sagitta delicata					+	+
Sagitta sp			R R			

October					
01	02	03	04	05	06
12	12	12	12	12	12
1625	1750	1915	2045	2210	2330
86.7	17.6	91.7	96.6	93.0	47.6
23	50	50	50	50	50
+	R R	R R	+	R R C	C
R R C C	C C	C C	C C	C	C
C C R R					
C R R	R R C	R R	R R	R R	R R
R R R R R R	R R R R	R R R R R R	R R R R	R R R R	R R R R
R R R R	+ R R R	R R R	+	+	+
R R					
R R R R	R R	R R	R R		R R
R R R	R	R R R	R	+ R R	R R R
		R R			
R R	R	+	R R R	R	+

S. 309 선 부유생물 조사성적

Plankton Data, Line 309, 1962

Month	April				June	
Station	01	03	05	07	01	03
Date	25	25	24	24	10	10
Time	0345	0105	2220	2006	1137	1350
Biomass(mg/m^3)	117.5	121.9	174.2	111.7	153.8	188.5
Collected depth	25	50	50	50	50	50
Zooplankton						
Calanus finmarchicus	R	C	R R	R R	C C	+
Calanus helgolandicus						
Eucalanus attenuatus						
Mecynocera clausi						
Paracalanus parvus		R R	R R	R R	R	R R
Euchaeta marina						
Centropages larva	R R					
Certropages typicus	R R	R R	+	C	R	R R
Labidocera detruncata						
Acartia clausi	R	+	C C	C	C C	+
Tortanus barbatus						
Oithona similis	R R	R R	R R	R R	R R	
Oithona plumifera	R R	R R	R R	R R	R R	R R
Corycaeus sp	R R	R	R R	R R	R R	R R
Oncaea venusta						R R
Copepoda sp	R	+	R R	R R	R	R
Nyctiphanes australis		R R	R R	R R		R R
Amphipoda sp						
Oikopleura longicauda						R R
Oikopleura dioica						
Oikopleura sp					R R	R R
Doliolum denticulatum						
Salpa sp						
Thalia democratica						
Copepoda larva	R	R R	R R	R R	R R	R R
Mysis larva						
Zoea larva						
Brachyura larva				R R	R R	
Brachyscelus larva		R R		R R		R R
Euphausia larva		R R				
Paracalanus larva	R R	R R	R R	R R	R R	R R
Pelagic egg	R R	C	R R	R R	R R	R R
Scale						
Noctiluca scintillans					R	
Sagitta delicata	R R		R R	R R		
Sagitta sp					R R	

August		October			
01	05	01	03	05	07
4	4	13	13	13	13
0600	1040	1410	0955	0700	0410
—	74.0	113.	47.1	—	59.0
50	50	50	50	50	50
			C R R	R R	C
+		+	C	C	R R C
R R					
R R R		R R	R R		R R
				R R	
R R		C	C	R R +	C C
		R R	R R R R	R R	R
	C C	+	R R R R R R	+	
		R R	+ R	R R R R	R
R R					
		R R R R	R R		
		R R	R R	R	+ R R

T. 308 선 부유생물 조사성적

Plankton Data, Line 308, 1962

Month	April			August			October			
Station	02	04	06	03	05	09	01	03	05	06
Date	25	25	26	1	1	1	18	18	18	19
Time	0655	0903	1015	1445	0140	0833	1735	2000	2313	0025
Biomass(mg/m³)	12.6	77.8	90.8	—	—	—	236.3	82.9	9.7	18.8
Collected depth	20	50	50	50	50	50	25	25	45	50
Zooplankton										
Calanus finmarchicus	C	R	R R			R R				
Calanus helgolandicus							R R	R	+	R
Paracalanus parvus		R R				R R	C C	+	+	+
Clausocalanus furcatus							R R			
Euchaeta marina								R R		R R
Centropages typicus	R R	R	C					R R		
Calanopia thompsoni							R R			
Acartia clausi	+	+	+			C C	R R	R R		
Tortanus barbatus							R R	R R		
Oithona similis	R R	R R	R R				R R	R R		
Oithona plumifera		R R	R R			R R		R R		
Corycaeus sp	R R	R R	R R				+	+	+	+
Sapphirina sp							R R			
Copepoda sp	R	R R	R R							
Amphipoda sp							R R	R R		R R
Brachyscelus latipes						R R				
Oikopleura longcauda								R R	R R	
Doliolum denticulatum							R R	R R	R R	R R
Euphausia sp								R R	R R	
Nyctiphanes australis		R R	R							
Cyclosalpa sp				C C						
Salpa sp				C C		R R	R R	R R	R R	R
Thalia democratica									R R	
Copepoda larva	R	R R	R R							
Mysis larva									R R	
Zoea larva							+	R		R R
Ophiopluteus larva		R R	R R							
Brachyscelus larva		R R	R R							
Paracalanus larva		R R	R R	R R						
Pelagic egg	R	C C	+							
Liriop tetrophyela										
Sagitta delicata	R R						R R	R	R R	+
Sagitta sp						R	R R			
Creseis virgula virgula							R R			

제 3 편

특 별 해 양 관 측 성 적

PART 3

MISCELLANEOUS OCEANOGRAPHIC OBSERVATIONS

1962

목 차

진해만 해양관측점 위치도 ····· 160
진해만 해양관측점 위치표 ····· 163
1. 진해만 해양관측성적 ····· 164
2. 진해만 부유생물조사성적 ····· 187

CONTENTS

Station Locations, Chinhae-Man. ····· 160
Position of Oceanographic Stations, Chinhae-Man. ····· 163
1. Oceanographic Data, Chinhae-Man. ····· 164
2. Plankton Data, Chinhae-Man. ····· 187

진해만 해양관측점 위치도

Station Locations, Chinhae-Man

진 해 만 해 양 관 측 성 적

OCEANOGRAPHIC DATA CHINHAE-MAN

1 9 6 2

진해만 해양관측점 위치표

Position of Oceanographic Stations, Chinhae-Man

觀測點 Sta. No.	位置 Position
C_1	Lat. (N) 35°02′ Long. (E) 129°01′
C_2	Lat. (N) 35°01′ Long. (E) 128°59′
C_3	Lat. (N) 35°00′ Long. (E) 128°55′
C_4	Lat. (N) 34°57′ Long. (E) 128°50′
C_5	Lat. (N) 34°59′ Long. (E) 128°45′
C_6	Lat. (N) 35°02′ Long. (E) 128°45′
C_7	Lat. (N) 35°03′ Long. (E) 128°43′
C_8	Lat. (N) 35°05′ Long. (E) 128°41′
C_9	Lat. (N) 35°03′ Long. (E) 128°39′
C_{10}	Lat. (N) 35°01′ Long. (E) 128°35′
C_{11}	Lat. (N) 35°03′ Long. (E) 128°32′
C_{12}	Lat. (N) 35°00′ Long. (E) 128°31′
C_{13}	Lat. (N) 34°58′ Long. (E) 128°33′
C_{14}	Lat. (N) 34°56′ Long. (E) 128°34′
C_{15}	Lat. (N) 34°56′ Long. (E) 128°30′
C_{16}	Lat. (N) 34°50′ Long. (E) 128°26′
C_{17}	Lat. (N) 34°05′ Long. (E) 128°17′
C_{18}	Lat. (N) 34°05′ Long. (E) 128°08′
C_{19}	Lat. (N) 34°38′ Long. (E) 128°08′
C_{20}	Lat. (N) 34°45′ Long. (E) 128°08′
C_{21}	Lat. (N) 34°34′ Long. (E) 128°02′
C_{22}	Lat. (N) 34°32′ Long. (E) 128°13′
C_{23}	Lat. (N) 34°34′ Long. (E) 128°25′
C_{24}	Lat. (N) 34°41′ Long. (E) 128°23′
C_{25}	Lat. (N) 34°45′ Long. (E) 128°27′
C_{26}	Lat. (N) 34°37′ Long. (E) 128°35′
C_{27}	Lat. (N) 34°43′ Long. (E) 128°43′
C_{28}	Lat. (N) 34°50′ Long. (E) 128°50′
C_{29}	Lat. (N) 34°55′ Long. (E) 128°56′
C_{30}	Lat. (N) 34°59′ Long. (E) 129°01′

1. 진 해 만 해 양 관 측 성 적

Oceanographic Data, Chinhae-Man

Date		① February 1962				② March 1962		
Station Number		C_1	C_2	C_4	C_8	C_1	C_2	C_3
Day		2	2	2	2	7	7	6
Item	Time / Z(m)	1045	1135	1225	1320	0925	0816	0745
T °C	0	11.95	12.00	10.20	6.35	11.00	11.00	11.40
	10	11.72	11.76	10.07	6.06	11.07	11.21	11.31
	25	—	—	9.67	6.02	—	11.36	11.22
	50	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	11.71	11.78	8.28	6.19	12.00	11.34	11.12
S ‰	0	34.40	34.49	33.95	33.48	34.38	34.29	34.58
	10	34.43	34.49	34.09	33.59	34.54	34.38	34.56
	25	—	—	34.16	33.50	—	34.47	34.56
	50	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—
	Botm.	34.56	34.56	33.95	33.53	34.56	34.47	34.56
Sounding (m)		26	27	40	36	26	27	40
Transp. (m)		1.5	3	5.5	5	3	8	11
Color		7	6	6	6	—	—	—
Wave		2	2	2	2	4	4	2
Swell		0	1	1	0	3	3	1
Air Temp. (°C)		5.0	10.10	9.8	5.5	8.2	7.5	11.0
Air Press. (mm)		775	775	765	767	763	763	763
Wind		N/W. 2	N/W. 2	N/W. 3	N/W. 2	NW. 4	NW. 4	W. 2
Cloud		Cs. 3	Cs. 3	Cs. 3	—	St. 10	Cs. 10	Ci. 4
Weather		BC	BC	BC	B	R	R	BC

③ May 1962

C_1	C_2	C_3	C_4	C_5	C_6	C_7	C_8	C_9	C_{10}
16	6	16	6	6	6	6	6	6	7
1408	1004	1128	1336	1445	1540	1652	1817	1949	0830
14.9	14.8	15.8	15.4	15.4	16.3	15.2	15.6	15.8	14.0
15.0	14.7	15.6	14.9	15.2	15.6	15.1	15.2	15.8	14.0
16.1	14.5	14.8	14.5	14.5	14.6	14.4	14.3	15.4	13.9
14.9	14.3	14.2	14.5	14.4	14.0	14.2	13.6	—	13.8
—	14.2	13.5	—	14.3	—	—	—	—	13.8
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
14.8	13.9	12.9	14.4	14.3	14.4	13.2	12.0	14.9	13.7
34.25	33.91	33.55	33.75	33.44	33.19	35.07	33.15	33.26	33.43
34.25	34.11	33.66	33.80	33.55	—	33.21	33.19	34.16	—
34.25	34.42	34.24	33.71	33.48	33.30	33.21	33.37	34.27	34.52
34.34	34.33	34.27	33.68	—	33.50	33.28	33.39	—	34.43
—	34.42	34.43	—	33.59	—	—	—	—	34.43
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
34.34	34.52	34.52	33.93	33.69	33.26	33.46	33.26	34.42	34.52
24	27	33	24	26	18	17	20	12	53
4	2	6	3	3.3	5.2	8	10	—	3.4
—	—	—	—	—	—	—	—	—	—
4	1	3	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1
18.9	17.6	18.2	19.0	19.5	20.3	19.9	17.2	16.8	15.5
—	—	—	—	—	—	—	—	—	—
SW. 3	E. 2	SW. 3	NW. 1	W. 1	SW. 1	SW. 2	SW. 1	SW. 1	S. 1
St. 7	Ci. 1	St. 7	St. 5	St. 4	St. 6	Ci. 4	St. 6	St. 4	St. 6
BC	B	BC	BC	BC	BC	BC	BC	BC	BC

Date		May 1962									
Station Number		C_{11}	C_{12}	C_{13}	C_{14}	C_{15}	C_{16}	C_{17}	C_{18}	C_{19}	C_{20}
Day		7	7	7	7	7	7	9	10	10	11
Item	Time / Z(m)	1032	1218	1425	1615	1725	1200	1340	1210	1340	0900
T °C	0	15.5	14.7	15.4	15.4	15.2	16.2	15.4	15.4	14.7	15.1
	2	14.0	14.7	15.3	15.3	15.0	15.4	15.4	15.3	14.4	14.8
	5	14.2	14.0	—	15.1	14.6	14.8	—	14.7	13.6	14.4
	10	14.5	14.0	—	14.6	—	13.9	—	—	13.5	13.7
	20	—	—	—	14.2	—	—	—	—	12.9	13.4
	150	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	Botm.	15.0	14.5	15.1	14.0	14.5	13.5	14.8	13.9	12.7	13.1
S ‰	0	34.00	33.73	32.90	33.12	33.46	34.07	33.98	33.98	34.22	34.07
	2	—	33.82	32.90	33.12	33.46	34.16	34.11	33.87	—	34.24
	5	34.22	34.02	—	33.51	33.46	34.51	—	33.91	34.25	34.24
	10	34.34	34.16	—	33.37	—	34.34	—	—	34.27	34.43
	20	—	—	—	33.28	—	—	—	—	31.38	34.34
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	Botm.	34.24	34.16	32.90	—	33.53	34.34	34.07	34.29	34.27	34.34
Sounding (m)		17	16	5	43	13	25	7	13	47	39
Transp. (m)		4.2	2.5	1.8	1.5	2	5	1.5	1.5	3	3.5
Color		—	—	—	—	—	—	—	—	—	—
Wave		1	1	1	2	1	1	1	2	2	1
Swell		1	1	1	1	1	1	1	1	1	1
Air Temp. (°C)		22	17.9	20.5	20.4	18.5	23.3	21.2	17.2	18.9	19.2
Air Press. (mm)		—	—	—	—	—	—	—	—	—	—
Wind		S. 1	S. 1	E. 1	S. 2	S. 2	S. 1	W. 2	W. 2	W. 2	S. 1
Cloud		St. 7	St. 5	Ci. 5	St. 3	St. 3	St. 5	St. 4	St. 3	St. 2	St. 5
Weather		BC	BC	BC	BC	BC	BC	BC	BC	B	BC

May 1962							
C_{21}	C_{22}	C_{23}	$_{24}$	C_{25}	C_{26}	C_{27}	C_{28}
11	13	14	14	14	16	16	16
1040	0712	0925	1108	1325	0850	1030	1255
15.9	14.7	15.4	14.6	14.5	15.4	15.5	15.2
14.9	14.7	15.3	14.5	14.4	15.3	15.4	15.1
14.6	14.5	15.2	14.5	14.3	15.1	14.8	15.0
14.4	13.7	14.5	14.3	14.1	14.6	14.5	14.6
13.5	—	13.3	13.9	13.8	13.9	13.9	14.6
—	—	—	13.1	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
13.5	13.5	13.1	13.1	13.0	13.2	13.0	13.1
34.20	33.98	34.16	34.34	34.38	34.42	34.34	34.09
34.11	34.07	34.07	34.27	34.51	34.42	34.36	34.13
34.07	34.24	33.98	34.31	34.51	34.45	34.51	34.16
34.25	34.43	34.25	34.61	34.40	—	34.43	34.25
34.29	—	34.36	34.40	34.43	34.45	34.43	34.16
—	—	—	34.40	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	34.34	34.38	34.52	34.61	34.58	34.52	34.45
32	25	43	60	55	55	54	51
6.8	9	6.8	6	6	17	10	6
—	—	—	—	—	—	—	—
1	2	2	2	5	2	3	3
1	1	1	1	1	1	1	1
22.9	15.5	14.3	15.2	15.0	16.5	17.7	18.6
—	—	—	—	—	—	—	—
S. 1	W. 2	S. 2	S. 2	S. 4	SW. 1	SW. 2	SW. 3
St. 5	St. 2	Ci. 10	Ci. 10	Cc. 10	St. 8	Cs. 9	St. 7
BC	B	R	R	R	C	C	BC

Date		④ June 1962									
Station Number		C_1	C_2	C_3	C_4	C_5	C_6	C_7	C_8	C_9	C_{10}
Day		12	12	12	12	12	12	12	12	13	13
Item	Time / Z(m)	0800	0940	1340	1125	1225	1305	1515	1630	0940	1715
T °C	0	18.1	19.5	19.2	20.6	21.0	21.0	20.7	20.1	20.0	20.7
	5	16.7	18.3	19.1	19.8	19.6	20.1	19.6	19.6	18.1	17.3
	10	16.1	16.6	17.9	18.2	18.0	19.2	18.1	18.2	—	16.9
	15	15.6	15.1	16.7	—	16.5	—	—	—	—	16.9
	25	—	—	—	—	—	—	—	—	—	16.8
	50	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	Botm.	15.1	15.0	15.3	15.5	15.3	15.7	17.0	17.0	18.6	16.6
S ‰	0	33.04	30.93	33.59	33.06	33.15	32.72	32.38	32.72	33.24	33.51
	5	33.86	33.59	33.71	33.42	32.81	32.81	32.99	32.72	33.33	33.59
	10	34.04	33.86	33.95	33.33	33.24	33.77	33.51	32.63	—	33.59
	15	34.13	34.22	34.04	—	33.68	—	—	—	—	33.77
	25	—	—	—	—	—	—	—	—	—	33.68
	50	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	Botm.	34.31	34.22	34.13	33.41	33.86	33.86	33.59	33.06	33.68	33.95
Sounding (m)		27	30	25	23	35	23	19	20	13	48
Transp. (m)		3.5	4.5	4.8	5.5	5.5	5.3	5.8	7	4.5	4
Color		—	—	—	—	—	—	—	—	—	—
Wave		0	1	1	0	0	0	1	0	0	0
Swell		1	0	2	0	0	0	1	0	0	0
Air Temp. (°C)		20.9	19.5	21.6	25.0	25.7	24.0	21.9	23.1	26.5	21.3
Air Press. (mm)		—	—	—	—	—	—	—	—	—	—
Wind		S.1	S.1	E.4	S.1	S.1	S.1	S.2	W.1	S.1	S.1
Cloud		Cc.8	Ci.8	Cc.1	Ci.4	Cc.3	Cc.2	Cc.8	Cc.8	Cc.4	Cc.2
Weather		C	C	B	BC	BC	B	C	C	BC	B

June 1962

C_{11}	C_{12}	C_{13}	C_{14}	C_{16}	C_{17}	C_{18}	C_{19}	C_{20}
13	14	14	14	14	14	14	16	16
1810	0700	0825	1006	1715	1830	1915	0735	0920
20.2	19.6	21.1	20.0	21.7	20.4	21.7	19.2	20.8
19.8	19.2	17.7	18.9	19.4	18.8	19.8	—	20.2
17.3	17.6	—	18.1	—	—	19.7	—	18.2
17.0	17.1	—	—	—	—	18.3	—	17.9
16.5	—	—	—	—	—	—	—	—
15.9	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
15.6	17.0	17.2	17.4	18.6	18.2	17.4	19.1	17.8
33.42	33.24	32.97	33.51	31.82	32.72	32.99	—	—
33.42	33.33	33.42	33.59	33.01	33.42	33.33	—	—
33.68	33.55	—	33.86	—	—	33.46	—	—
33.68	33.68	—	—	—	—	34.04	—	34.22
33.77	—	—	—	—	—	—	—	—
33.77	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
33.77	33.42	33.42	34.49	33.84	33.86	34.14	—	34.24
74	28	13	18	12	14	22	8	20
5.5	6	6	4	4	6	9	0.8	9
—	—	—	—	—	—	—	—	—
0	0	0	0	1	1	0	0	0
1	—	—	—	1	1	0	0	1
20.8	20.8	21.9	21.5	23.0	23.2	22.3	22.3	23.5
—	—	—	—	—	—	—	—	—
S. 1	S. 1	S. 1	S. 1	S. 2	S. 2	S. 1	S. 1	S. 1
Cc. 1	Cc. 9	Cc. 9	Cc. 2	Cc. 8	Cc. 10	Cc. 10	Cc. 1	Cc. 1
B	C	C	B	C	C	C	B	B

Date		June 1962								
Station Number		C_{21}	C_{22}	C_{23}	C_{24}	C_{25}	C_{26}	C_{27}	C_{28}	C_{29}
Day		16	16	16	16	17	17	17	19	19
Item	Time / Z(m)	1105	1230	1400	1545	1045	1215	1410	1050	1235
T °C	0	20.9	20.2	21.5	19.1	20.8	21.8	19.4	19.4	18.2
	5	19.6	19.8	20.4	18.3	19.5	20.0	18.6	17.5	16.3
	10	18.2	19.0	20.2	18.2	18.2	18.2	18.2	17.2	15.3
	15	16.6	18.1	18.7	18.1	17.2	17.4	18.0	16.9	15.2
	25	16.2	16.5	16.6	—	16.1	16.8	17.2	16.1	14.5
	50	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—
	Botm.	14.3	14.9	16.2	16.5	14.8	14.9	15.4	15.9	14.1
S ‰	0	33.95	33.86	33.66	33.68	34.13	35.73	33.98	34.16	—
	5	34.04	33.86	34.27	33.84	33.95	33.95	33.95	34.20	34.15
	10	34.18	33.96	33.82	34.04	34.09	34.04	34.14	34.16	34.33
	15	34.20	34.00	33.96	34.09	34.13	34.07	34.07	34.23	34.33
	25	34.20	34.29	34.24	—	34.25	34.20	34.04	34.24	34.29
	50	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—
	Botm.	—	35.35	34.25	34.27	34.24	34.16	34.29	34.29	34.33
Sounding (m)		55	43	34	25	48	53	60	58	47
Transp. (m)		8.5	7	9	6	9.5	12	4.8	6	5
Color		—	—	—	—	—	—	—	—	—
Wave		0	0	1	0	0	0	0	1	0
Swell		1	1	1	1	1	1	1	1	1
Air Temp. (°C)		25.4	23.5	26.5	24.2	22.7	24.0	25.1	20.5	22.5
Air Press. (mm)		—	—	—	—	—	—	—	—	—
Wind		S. 1	S. 1	S. 2	S. 2	S. 1	SE. 1	SE. 1	E. 3	SE. 3
Cloud		Cc. 1	Cc. 1	Cc. 3	Cc. 3	Cc. 4	Cc. 4	Cc. 4	Cc. 3	Cc. 3
Weather		B	B	BC	BC	BC	BC	BC	BC	B

⑤ July 29 ~ August 5, 1962

C_1	C_2	C_4	C_5	C_6	C_7	C_8	C_9	C_{10}
29	29	29	29	29	29	29	29	30
0900	1130	1330	1435	1515	1615	1720	1920	0710
24.50	25.10	27.00	26.00	26.60	26.90	27.40	25.50	22.60
22.45	20.30	21.25	22.00	22.15	24.45	26.45	—	22.90
20.80	—	—	21.25	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
	15.45	19.00	16.30	18.35	18.15	19.30	22.80	18.30
28.66	29.04	29.15	29.83	30.08	29.81	31.78	32.52	32.88
31.92	32.72	32.63	31.83	31.58	31.33	32.07	—	32.88
33.40	—	—	32.30	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	33.80	—	33.49	32.94	33.19	33.22	32.72	33.44
25	32	20	35	28	20	20	10	20
5	6	4	4.5	4	5	5	3	6
—	—	—	—	—	—	—	—	—
1	—	1	1	2	2	2	1	2
—	—	—	—	—	—	—	—	—
25.1	26.0	31.4	28.4	—	—	—	—	24.8
—	—	—	—	—	—	—	—	—
S.2	S.2	S.1	S.2	S.2	S.2	S.3	S.2	S.2
Cu.2	Cu.2	Cu.2	Cu.1	—	Cu.1	Cu.2	Cu.8	Cu.2
B	B	B	B	C	B	B	C	B

Date		July 29 ~ August 5, 1962								
Station Number		C_{11}	C_{12}	C_{13}	C_{14}	C_{16}	C_{17}	C_{18}	C_{19}	C_{20}
Day		30	30	30	30	31	31	31	4	4
Item	Time / Z(m)	0830	0930	1130	1310	0935	1100	1130	0830	0930
T °C	0	24.40	25.10	24.70	24.00	25.90	25.00	27.40	25.50	24.50
	5	—	—	—	—	—	24.61	—	25.45	24.12
	10	22.81	24.52	24.70	22.72	22.90	—	23.21	—	—
	25	19.25	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	Botm.	15.95	19.15	21.15	21.50	21.85	23.81	21.20	24.70	23.45
S ‰	0	32.27	32.07	32.16	32.52	29.59	29.70	30.12	31.87	32.16
	5	—	—	—	—	—	32.05	—	31.88	32.25
	10	32.56	32.32	32.97	32.16	26.00	—	32.14	—	—
	25	33.24	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	Botm.	33.59	32.23	32.97	32.70	32.12	31.04	33.26	31.99	32.19
Sounding (m)		60	25	15	15	15	10	23	7	15
Transp. (m)		10	13	9	4	2.5	3.5	6	2	2
Color		—	—	—	—	—	—	—	—	—
Wave		1	2	1	2	1	1	1	—	—
Swell		—	—	—	—	—	—	—	—	—
Air Temp. (°C)		26.9	26.9	—	—	28.5	28.2	28.5	25.0	25.0
Air Press. (mm)		—	—	—	—	—	—	—	—	—
Wind		S. 1	S. 1	S. 2	S. 2	—	S. 1	S. 1	—	—
Cloud		Cu. 6	Cu. 7	Cu. 10	Cu. 7	Cu. 6	Cu. 1	Cu. 6	Ac. 1	Ac. 1
Weather		BC	BC	R	BC	BC	B	BC	B	B

July 29 ~ August 5, 1962

C_{21}	C_{22}	C_{23}	C_{24}	C_{25}	C_{26}	C_{27}	C_{28}	C_{29}	C_{30}
4	4	4	4	4	5	5	5	5	5
1135	2320	1610	1745	1430	0945	1125	1330	1505	1600
24.50	25.00	25.00	25.00	25.00	23.90	23.60	24.40	23.50	27.50
23.10	23.65	22.9	25.5	23.80	23.45	22.40	22.05	21.50	—
22.90	19.20	—	—	23.50	23.20	21.10	20.4	21.90	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
14.52	13.45	18.85	22.8	14.30	15.60	14.20	14.08	16.30	—
32.01	31.20	32.28	32.16	31.99	31.99	32.68	31.79	—	4.98
31.62	32.12	32.18	32.34	32.01	32.09	32.76	32.79	32.70	—
32.09	32.89	—	—	32.01	32.28	32.76	32.88	32.52	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
33.53	34.02	33.26	32.56	35.68	33.80	34.02	34.00	30.77	—
45	45	35	20	45	50	60	60	45	—
3	2	3	2	3	14	5	6	9	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
1	1	—	1	1	1	2	2	2	1
24.7	—	—	26.0	26.0	25.0	24.7	24.2	24.0	—
—	—	—	—	—	—	—	—	—	—
S. 1	SW. 1	S. 2	S. 1	S. 2	S. 1	S. 2	S. 2	S. 3	S. 1
—	—	—	—	Ac. 2	Cu. 5	Cu. 5	—	Cu. 3	Cu. 3
B	B	B	B	B	BC	BC	—	BC	BC

Date		⑥ August 1962									
Station Number		C_1	C_2	C_3	C_4	C_5	C_6	C_7	C_8	C_9	C_{10}
Day		30	30	30	30	30	30	29	29	29	28
Item	Time / Z(m)	1750	1630	1505	0300	0810	0720	1300	1205	1030	1200
T °C	0	23.00	23.50	25.50	23.50	23.40	23.50	24.50	22.50	24.80	23.00
	10	23.20	23.07	23.49	32.57	22.81	23.30	24.67	24.87	24.28	26.60
	25	23.10	22.06	23.08	22.47	23.30	—	—	—	—	22.77
	50	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—
	Botm.	21.03	20.29	20.83	19.59	21.04	21.26	24.78	22.79	22.90	17.85
S ‰	0	29.72	07.72	17.79	20.17	25.19	27.86	27.47	30.14	31.22	31.29
	10	30.55	25.26	27.32	26.53	28.28	28.73	29.61	30.43	39.29	31.37
	25	32.72	31.65	30.70	30.01	30.07	—	—	—	—	31.38
	50	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—
	Botm.	32.86	32.79	32.11	32.41	32.12	32.63	32.77	32.68	31.89	33.03
Sonnding (m)		25	30	24	35	30	20	20	15	10	30
Transp. (m)		4.2	0.1	2.0	1.5	3.5	4.3	5.0	7.0	4.5	5.3
Color		—	—	—	—	—	—	—	—	—	—
Wave		1	1	1	0	0	0	0	—	—	1
Swell		1	1	1	1	1	0	0	—	—	1
Air Temp. (°C)		26.6	26.2	27.0	24.3	23.8	23.5	28.0	27.2	25.5	24.2
Air Press. (mm)		—	—	—	—	—	—	—	—	—	—
Wind		SW. 2	S. 2	S. 2	—	W. 1	0	—	—	E. 1	—
Cloud		2	3	3	2	3	4	1	1	1	10
Weather		B	BC	BC	B	BC	BC	B	B	B	C

August 1962

C_{11}	C_{12}	C_{13}	C_{14}	C_{15}	C_{16}	C_{17}	C_{18}	C_{19}	C_{20}
28	28	28	28	27	27	27	27	26	26
1100	0940	0845	0745	1203	1005	09.0	0820	1500	1325
24.00	24.00	23.00	23.50	25.00	24.50	24.00	24.20	24.50	24.00
23.08	23.38	23.63	23.38	24.17	23.67	23.72	23.88	—	24.26
21.39	—	—	—	—	—	—	—	—	—
19.04	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
15.10	21.81	23.41	21.81	23.20	22.12	22.56	22.39	24.46	22.40
30.41	31.35	30.99	31.47	27.54	27.99	30.54	31.87	31.92	31.80
30.86	31.38	30.99	31.28	30.14	30.16	31.08	31.37	—	31.80
31.89	—	—	—	—	—	—	—	—	—
32.97	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
33.39	32.30	31.46	32.11	31.38	31.80	31.91	—	31.96	31.84
50	15	20	15	15	20	24.0	24.5	6	15
9	—	8	6	2.2	3.5	8.5	10	5	6
—	—	—	—	—	—	—	—	—	—
1	—	—	—	—	—	—	—	—	—
1	1	—	2	0	—	—	—	—	—
24.7	—	—	24.5	24.7	24.5	24.0	24.5	25.5	25.5
—	—	—	—	—	—	—	—	—	—
S. 1	—	—	S. 2	S. 1	E. 2	S. 1	S. 1	S. 2	—
St. 10	10	—	Ns. 10	10	10	10	10	2	2
C	C	—	C	C	C	C	C	B	B

Date		August 1962								
Station Number		C_{21}	C_{22}	C_{23}	C_{24}	C_{26}	C_{27}	C_{28}	C_{29}	C_{30}
Day		26	26	26	25	24	23	23	23	23
Item	Time / Z(m)	1200	1030	0830	1435	1540	14 0	1155	1010	24.2
T °C	0	24.20	24.50	22.00	22.00	25.50	24.50	25.00	26.20	25.00
	5	22.79	22.78	23.57	23.56	23.58	23.42	23.10	—	24.41
	10	22.73	22.21	21.45	23.04	23.38	22.86	21.69	—	22.26
	25	22.10	—	—	—	20.15	20.36	17.42	21.98	—
	50	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	Botm.	13.88	13.88	16.84	18.53	15.30	14.46	13.18	15.47	14.56
S ‰	0	31.02	31.35	—	30.55	29.69	30.95	31.00	—	31.40
	5	31.22	31.42	30.50	30.66	30.99	31.33	31.11	—	31.56
	10	31.80	31.74	32.03	31.09	31.53	32.05	32.48	—	32.47
	25	31.82	—	—	—	32.66	32.45	33.15	32.57	—
	50	—	—	—	—	—	—	33.51	—	—
	100	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—
	Botm.	33.31	33.64	33.04	32.81	33.21	33.30	—	33.03	33.30
Sounding (m)		55	40	30	30	50	50	50	45	40
Transp. (m)		14	12.5	12	12	13	8.2	6	12.5	14.5
Color		—	—	—	—	—	—	—	—	—
Wave		—	1	2	2	4	1	1	1	0
Swell		—	1	1	2	2	1	1	1	1
Air Temp. (°C)		26.3	25.5	24.5	28.0	24.5	25.6	24.5	26.0	26.3
Air Press. (mm)		—	—	—	—	—	—	—	—	—
Wind		SW. 1	SW. 1	SW. 1	S. 3	S. 7	S. 2	S. 4	S. 2	S. 1
Cloud		3	3	2	2	3	8	4	3	3
Weather		BC	BC	B	B	BC	C	BC	BC	BC

⑦ August 1962

C_1	C_4	C_5	C_6	C_7	C_8	C_9	C_{10}	C_{11}	C_{12}
20	25	25	25	24	24	24	24	24	24
1500	1100	1015	0930	1805	1720	1250	1135	1030	0905
21.5	22.5	22.3	22.7	23.0	23.1	22.7	22.1	22.5	22.7
20.1	21.5	21.8	22.3	22.8	21.5	21.9	21.5	22.3	22.4
18.5	21.0	21.5	21.7	21.4	20.5	—	21.2	21.6	22.3
—	20.2	19.5	20.5	19.7	—	—	20.7	20.6	21.5
—	—	18.5	—	—	—	—	18.9	19.1	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
14.5	17.0	19.0	18.7	17.9	19.1	20.7	17.2	15.6	19.4
28.74	29.45	28.78	29.04	28.53	31.38	30.81	31.17	30.82	30.52
30.46	30.19	29.27	29.05	29.24	29.69	30.99	31.18	31.02	30.63
32.61	30.23	30.21	29.94	30.32	31.18	—	31.26	31.26	30.82
—	28.78	31.73	31.62	31.31	—	—	31.37	31.44	31.15
—	—	32.39	—	—	—	—	32.70	32.18	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	33.08	32.41	32.32	32.65	32.70	31.55	32.95	32.84	32.07
30	28	35	24	25	19	13	38	50	23
4	6	6	7	6	6	5	5	9	5
—	—	—	—	—	—	—	—	—	—
2	2	—	2	1	0	0	1	1	1
2	1	—	1	0	0	0	1	1	1
24.9	20.0	20.5	20.7	23.8	24.5	23.0	22.6	25.0	22.2
—	—	—	—	—	—	—	—	—	—
W. 3	SE. 3	E. 3	E. 2	W. 2	W. 1	W. 1	SW. 2	NW. 2	S. 2
4	2	—	2	1	1	8	8	6	5
BC	B	—	B	B	B	C	C	BC	BC

Date		September 1962									
Station Number		C_{13}	C_{14}	C_{15}	C_{16}	C_{17}	C_{18}	C_{19}	C_{20}	C_{21}	C_{22}
Day		24	24	23	23	23	23	22	22	22	21
Item	Time / Z(m)	0815	0700	1010	0820	0715	0645	425	1245	1130	1545
T °C	0	22.7	22.1	23.1	23.2	23.0	23.0	24.1	23.9	23.5	23.5
	5	22.7	22.4	—	22.8	22.5	22.4	22.8	22.4	23.0	23.4
	10	22.7	—	—	22.2	—	21.8	—	22.2	23.0	23.3
	25	—	—	—	22.0	—	—	—	21.6	21.0	23.0
	50	—	—	—	—	—	—	—	—	21.0	—
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	Botm.	22.3	20.3	22.7	21.5	21.8	21.3	22.8	19.5	15.6	18.0
S ‰	0	30.23	30.25	27.38	22.67	24.90	24.85	29.99	30.28	30.79	31.15
	5	30.44	29.87	—	28.93	30.37	29.52	30.39	30.54	30.79	31.53
	10	30.54	—	—	30.48	—	30.86	—	30.57	30.86	31.09
	25	—	—	—	30.55	—	—	—	—	30.99	31.00
	50	—	—	—	—	—	—	—	—	30.97	—
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	Botm.	30.34	31.20	28.71	30.93	31.33	31.22	30.05	31.74	33.87	32.77
Sounding (m)		16	15	6	25	15	18	11	25	56	34
Transp. (m)		7	4	4	4	4	5	4	5	17	17
Color		—	—	—	—	—	—	—	—	—	—
Wave		0	0	2	1	1	1	0	0	0	—
Swell		0	1	1	1	0	0	0	0	0	—
Air Temp. (°C)		22.4	21.5	26.0	24.5	24.5	24.5	25.6	24.4	26.0	24.0
Air Press. (mm)		—	—	—	—	—	—	—	—	—	—
Wind		SW. 1	SW. 1	S. 5	SW. 3	SW. 2	S. 3	S. 1	E. 1	E. 1	E. 4
Cloud		4	9	10	10	10	10	8	1	2	—
Weather		BC	C	R	R	C	C	C	B	B	—

September 1962							
C_{23}	C_{24}	C_{25}	C_{26}	C_{27}	C_{28}	C_{29}	C_{30}
21	21	23	21	21	21	21	20
1605	1720	1340	1700	0935	0800	0755	1620
23.0	23.0	23.4	23.0	22.0	23.5	21.0	24.0
23.1	22.5	23.1	22.5	22.0	19.5	20.5	22.5
22.9	22.3	23.0	21.5	21.0	19.0	19.5	20.5
21.5	—	22.5	20.5	19.5	18.0	18.5	—
—	—	—	19.0	16.5	15.5	16.2	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
18.5	20.0	16.0	15.5	15.2	14.6	14.7	19.0
30.61	29.96	30.90	30.82	31.24	31.20	29.33	14.65
30.64	30.34	30.97	30.93	31.24	32.27	31.33	30.48
—	30.75	31.02	30.93	31.49	32.38	31.89	31.33
30.77	—	31.28	31.64	31.85	32.39	32.54	—
—	—	—	31.74	33.53	33.91	33.75	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
32.50	32.30	33.89	34.13	34.15	33.95	34.15	32.70
23.0	25	36	50	60	50	55	45
17	7	17	16	10	9	9	3
—	—	—	—	—	—	—	—
1	0	1	1	1	0	1	1
1	0	1	1	1	1	1	2
23.0	23.5	24.5	24.5	22.4	24.5	23.0	25.5
—	—	—	—	—	—	—	—
E. 2	E. 2	E. 2	E. 3	NE. 2	È. 2	NE. 2	W. 2
9	10	9	7	3	1	3	8
C	C	C	BC	BC	B	BC	C

Date		⑧ October 1962								
Station Number		C_1	C_2	C_3	C_4	C_5	C_6	C_7	C_8	C_9	C_{10}
Day		17	21	17	21	21	21	21	21	21	20
Item	Time / Z(m)	1050	1405	1410	1210	1130	1050	1005	0900	0735	1645
T °C	0	19.6	19.0	20.0	19.3	19.4	19.5	19.3	19.4	17.8	18.5
	5	19.5	19.4	18.3	18.6	18.7	19.3	19.1	19.2	17.9	18.5
	10	19.5	19.1	18.1	18.5	18.7	19.1	19.1	19.0	—	18.1
	15	17.5	—	18.1	18.3	18.0	—	18.8	19.0	—	18.0
	25	—	—	—	—	—	—	—	—	—	17.5
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	Botm.	19.5	18.5	16.0	17.1	17.0	19.1	17.6	18.6	17.7	17.8
S ‰	0	32.03	—	32.18	30.75	30.77	30.50	30.41	30.14	31.91	32.30
	5	32.02	32.54	32.20	31.02	30.84	30.43	30.34	30.19	31.91	32.45
	10	32.27	32.36	32.27	32.02	32.02	30.84	30.39	30.19	—	32.50
	15	32.47	—	32.54	30.57	33.33	—	30.99	31.24	—	32.56
	25	—	—	—	—	—	—	—	—	—	33.08
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	Botm.	32.02	32.47	33.96	—	30.48	30.84	32.43	31.35	32.77	32.94
Sounding (m)		25	20	32	26	38	24	22	20	10	40
Transp. (m)		12	7	9	4	5	5	5	7	4	3
Color		—	—	—	—	—	—	—	—	—	—
Wave		—	1	—	1	1	1	—	1	—	—
Swell		—	1	—	1	1	1	—	1	—	—
Air Temp. (°C)		20.5	17.7	21.2	18.5	17.9	18.0	18.8	16.4	15.7	19.1
Air Press. (mm)		—	—	—	—	—	—	—	—	—	—
Wind		SE. 1	N. 3	SE. 2	N. 3	N. 1	N. 1	N. 1	N. 2	N. 1	N. 1
Cloud		1	8	1	4	7	1	1	—	—	—
Weather		B	C	B	BC	BC	B	B	B	B	B

October 1962									
C_{11}	C_{12}	C_{13}	C_{14}	C_{15}	C_{16}	C_{18}	C_{18}	C_{19}	C_{20}
20	20	20	20	20	20	20	20	19	19
1555	1505	1405	1250	1100	0920	0820	0740	1035	0900
19.4	19.9	19.8	19.8	19.1	19.5	19.3	19.6	18.9	19.0
19.2	19.6	19.7	19.8	—	19.7	19.4	19.6	18.9	19.0
18.3	19.0	19.7	19.8	—	20.1	—	19.6	—	19.0
17.9	18.3	—	—	—	20.3	—	—	—	19.0
17.4	—	—	—	—	—	—	—	—	18.6
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
17.1	17.7	19.6	19.7	18.9	20.3	19.4	19.0	18.9	18.3
32.11	31.98	31.58	31.38	30.01	30.57	30.37	30.34	31.13	31.58
32.33	32.00	31.62	31.38	—	30.73	30.48	30.43	30.26	31.65
32.63	32.59	31.56	31.99	—	31.85	—	30.57	—	31.64
32.88	32.86	—	—	—	31.65	—	—	—	32.23
33.04	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
33.50	33.03	32.29	32.36	30.08	31.78	30.30	30.43	31.22	32.38
63	28	17	18	5	27	14	16	8	23
4	3	4	4	3	4	3	4	4	3
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	1	—	—
—	—	—	—	—	—	1	1	—	—
19.7	21.5	19.7	20.4	19.5	17.0	16.0	16.0	19.3	17.0
—	—	—	—	—	—	—	—	—	—
N. 1	N. 1	N. 1	N. 2	N. 1	N. 2	N. 2	N. 1	N. 2	N. 3
2	1	4	2	1	2	8	9	1	2
B	B	BC	B	B	B	C	C	B	B

Date		October 1962									
Station Number		C_{21}	C_{22}	C_{23}	C_{24}	C_{25}	C_{26}	C_{27}	C_{28}	C_{29}	C_{30}
Day		19	19	18	18	18	18	18	17	17	17
Item	Time / Z(m)	0800	1730	1545	1450	—	1030	—	1645	1325	1200
T °C	0	19.6	19.7	20.5	20.3	20.8	19.9	18.9	19.6	19.5	19.4
	5	19.6	19.7	20.4	20.2	20.8	19.8	18.8	18.0	19.0	19.0
	10	19.5	19.4	20.4	20.1	20.8	19.7	18.7	17.8	18.0	18.6
	15	19.1	19.3	19.8	20.1	20.8	19.6	18.6	17.6	17.5	18.1
	25	17.7	—	—	19.3	18.2	17.5	17.7	17.1	17.2	16.0
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	Botm.	15.8	19.0	19.4	18.3	16.4	15.6	16.0	16.1	15.5	14.3
S ‰	0	31.40	31.71	31.89	31.78	32.34	32.45	32.45	32.43	32.11	31.94
	5	31.40	31.73	32.19	31.83	32.43	32.45	32.38	32.88	32.36	32.27
	10	31.51	31.85	32.21	31.91	32.63	—	32.41	32.92	32.38	32.38
	15	31.65	32.03	32.21	31.91	33.04	32.45	32.41	32.99	32.97	32.66
	25	32.77	—	—	32.52	—	32.77	33.05	33.04	33.15	33.75
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	Botm.	33.86	32.56	32.85	32.97	33.68	33.96	33.93	33.86	34.05	34.38
Sounding (m)		50	30	32	40	46	64	65	50	45	38
Transp. (m)		5	6	10	7	13	11	6	6	8	12
Color		—	—	—	—	—	—	—	—	—	—
Wave		—	—	—	—	1	1	1	—	—	—
Swell		1	—	—	—	1	1	1	1	—	—
Air Temp. (°C)		18.8	20.4	22.3	21.5	—	21.2	18.0	20.0	23.0	22.0
Air Press. (°C)		—	—	—	—	—	—	—	—	—	—
Wind		N. 1	S. 1	N. 1	N. 1	N. 1	N. 2	N. 2	SE. 1	SE. 1	SE. 1
Cloud		1	2	3	2	2	2	2	—	1	1
Weather		B	B	BC	B	B	B	B	—	B	B

⑨ November 1962

C_1	C_2	C_3	C_4	C_5	C_6	C_7	C_8	C_9	C_{10}
10	14	14	14	14	14	14	13	13	13
0830	1440	1400	1320	1240	1210	1125	1430	1310	1210
16.8	16.6	16.9	16.9	17.0	17.2	17.0	17.2	16.6	16.7
16.8	16.3	16.9	16.6	17.0	16.9	17.0	17.0	16.7	16.7
16.8	16.3	16.4	16.4	17.0	16.9	16.9	16.8	—	16.7
—	16.3	16.4	16.5	17.0	17.0	16.7	17.1	—	16.7
—	—	16.6	—	16.8	—	—	—	—	16.6
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
16.0	16.2	17.2	17.0	16.8	17.0	16.8	16.9	16.8	17.6
33.13	32.99	32.65	32.47	32.29	31.56	31.46	31.40	32.72	33.10
33.08	33.12	32.77	32.72	32.25	32.63	31.49	31.42	32.74	32.54
33.13	33.24	32.76	32.70	32.38	32.07	31.51	31.47	—	33.06
—	33.42	—	32.83	32.38	32.07	31.55	31.49	—	33.21
—	—	32.97	—	32.39	—	—	—	—	33.28
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
33.96	33.59	32.76	32.39	32.50	32.29	31.69	31.60	33.15	33.24
26	25	38	22	35	21	25	20	12	38
6	3	4	4	4	4	6	7	3	3
—	—	—	—	—	—	—	—	—	—
—	—	1	—	—	—	—	—	1	1
1	—	1	—	—	—	—	—	—	—
15.0	18.5	19.5	18.7	18.5	17.8	17.5	19.5	19.0	20.2
—	—	—	—	—	—	—	—	—	—
N.4	SE.1	SE.1	W.1	NE.1	NE.1	N.1	N2.	W.1	W.1
2	2	2	3	8	4	6	5	3	1
B	B	B	BC	C	BC	BC	BC	BC	B

Date		November 1962									
Station Number		C_{11}	C_{12}	C_{13}	C_{14}	C_{15}	C_{16}	C_{17}	C_{18}	C_{19}	C_{20}
Day		13	13	13	13	12	12	12	12	12	12
Item	Time / Z(m)	1120	1020	0915	0815	1615	1400	1245	1205	1005	0825
T °C	0	16.8	16.7	16.6	16.8	15.8	16.2	16.6	16.2	16.3	16.2
	5	16.7	16.5	16.6	16.8	15.8	16.2	16.5	16.2	16.2	16.0
	10	16.6	16.5	16.8	16.6	—	16.2	—	16.2	—	16.0
	15	16.7	16.5	—	16.6	—	16.3	—	16.3	—	15.8
	25	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	Botm.	16.8	16.9	16.9	16.6	16.3	16.4	16.6	16.8	16.2	15.8
S ‰	0	33.24	33.06	32.47	32.45	31.49	31.38	31.67	31.80	32.38	32.81
	5	33.22	33.06	32.39	32.63	31.56	31.38	31.74	31.82	32.38	32.83
	10	33.22	33.06	32.59	32.41	—	31.22	—	31.74	—	32.90
	15	33.24	33.35	—	32.43	—	31.40	—	31.85	—	32.90
	25	33.15	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—
	Botm.	33.15	33.24	32.36	32.39	31.49	31.51	32.02	31.74	32.38	33.21
Sounding (m)		50	20	17	21	10	25	12	20	10	23
Transp. (m)		4	3.5	2	3	2	1	2	3	—	—
Color		—	—	—	—	—	—	—	—	—	—
Wave		—	1	—	1	—	1	1	1	—	—
Swell		—	1	—	1	—	1	1	—	—	—
Air Temp. (°C)		17.5	18.0	18.0	15.2	18.5	19.8	18.0	18.5	15.6	15.5
Air Press. (mm)		—	—	—	—	—	—	—	—	—	—
Wind		NE. 1	W. 3	W. 1	N. 2	W. 1	SW. 2	W. 2	W. 1		W. 1
Cloud		1	2	1	2	1	1	1	1	1	1
Weather		B	B	B	B	B	B	B	B	B	B

November 1962

C_{21}	C_{22}	C_{23}	C_{24}	C_{26}	C_{27}	C_{28}	C_{29}	C_{30}
12	11	11	11	10	10	10	10	10
0730	1720	1500	1900	1820	1540	1400	1150	0940
16.0	16.4	18.0	17.3	17.0	16.9	16.5	17.0	18.0
15.9	16.3	17.0	17.3	18.0	16.9	16.4	17.2	17.8
15.9	16.2	17.4	17.3	16.9	16.9	16.4	17.2	17.8
15.8	16.0	17.2	17.3	16.5	16.9	16.4	17.3	17.8
15.3	15.8	—	17.2	—	16.9	16.2	17.2	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
15.3	15.4	17.3	17.2	15.9	16.9	16.0	15.8	15.8
32.68	32.68	32.59	32.88	32.83	32.99	33.42	32.90	33.42
32.90	32.68	32.63	32.86	32.72	32.92	33.51	32.83	33.15
32.86	32.70	32.65	32.88	32.79	33.12	33.53	33.06	33.22
32.99	32.83	32.83	32.85	32.81	33.03	33.51	33.08	33.24
33.33	33.51	—	32.83	—	33.10	33.60	33.42	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
33.66	33.77	32.92	32.88	33.77	33.22	33.59	34.31	34.05
50	50	24	40	50	60	65	50	45
4	8	4	5	—	6	3	7	—
—	—	—	—	—	—	—	—	—
1	—	—	1	—	1	1	1	2
—	—	—	1	1	1	1	1	1
15.0	16.5	20.0	15.5	16.0	15.5	16.5	17.5	15.5
—	—	—	—	—	—	—	—	—
SW. 1	W. 1	W. 1	W. 1	W. 3	W. 2	W. 2	N. 2	N. 4
1	1	1	1	1	1	0	2	4
B	B	B	B	B	B	B	B	BC

진 해 만 부 유 생 물 조 사 성 적

PLANKTON DATA CHINHAE-MAN

1 9 6 2

2. 진해만 부유생물 조사성적

Plankton Data, Chinhae-Man, 1962

Month	February			March	May							
Station	1	4	8	1	1	4	8	11	16	21	24	27
Date	2	2	2	7	6	6	6	7	11	11	14	16
Time	1045	1225	1320	0925	1408	1336	1817	1032	1200	1040	1508	1030
Biomass(mg/m^3)	37.7	361.8	981.3	622.0	116.8	285.4	365.1	506.6	660.5	48.1	60.8	89.9
Collected depth	25	40	35	26	20	20	18	19	20	25	45	50
Zooplankton Organisms	16	55	122	5	32	113	142	30	71	47	40	36
Phytoplankton Organisms	89	57	205	574	89	156	1	418	75	102	14	26
Zooplankton												
Calanus finmarchicus												
Calanus helgolandicus											R R	C
Calanus vulgaris					C							
Acrocalanus sp												
Paracalanus aculeatus												
Paracalanus parvus												
Pseudocalanus elongatus												
Euchirella rostrata												
Centropages bradyi												
Acartia sp												
Oithona nana												
Oithona similis												+
Corycaeus sp					R R		R R		R R	R R		
Copepoda sp												
Brachyscelus cruslum									R R	R R	R R	
Brachyscelus sp												R
Daphnia larva												
Mysidae sp												
Hyperia hydrocephala												
Evadne spinifera												
Evadne tergestina												
Penilia schmackeri												
Podon Schmackeri												
Fritillaria sp												
Pleurobrachia pileus												
Oikopleura dioica						R R						
Oikopleura sp						R R		R R				R R
Sagitta sp		+										
Ceratium breve												
Ceratium furca												
Ceratium fusus												
Ceratium intermedium												
Ceratium sumatranum												
Codonellopsis morchella												
Dictiocha fibula												
Dinophysis homunculus												
Noctiluca scintillans	R	C C	C C		C C	C C	R R					
Peridinium depressum												
P. oceanicum var oblongum												
Pyrocystis hanula												
Tintinnopsis cylindrica												
Tintinnopsis kofoidi												
Tintinnopsis pavella												
Tintinnopsis sp												
Phyrophacus horologicum												
Balanus larva					R R							
Bivalves larva					R R	R R	+		R R	R R		
Brachyscelus larva												
Calanus larva						R					C C	C
Copepoda larva	C C	R R	R	C C	C C	--	-+-	C C	C C	C C		+
Echinopluteus larva												
Lingula larva												
Paracalanus larva					R R			R R				
Penaeus larva												
Ophiopluteus larva												
Trypaea larva												
Siphonautes larva												

Month	June								July		
Station	1	4	8	11	16	21	24	27	1	4	8
Date	12	12	12	13	14	16	16	7	29	29	29
Time	0800	1125	1630	1810	1715	1105	1545	1410	0900	1330	1730
Biomass(mg/m^3)	158.5	232.8	188.6	89.2	147.4	40.0	128.4	64.9	5.0	47.1	18.8
Collected depth	25	20	20	30	10	30	20	30	25	20	20
Zooplankton Organisms	17	117	273	25	45	21	29	20	3	4	2
Phytoplankton Organisms	305	241	54	60	348	8	59	45	441	107	155
Zooplankton											
Calanus finmarchicus		R		+	+	R	C	C C			
Calanus helgoland cus											
Calanus vulgaris					R R		R				
Acrocalanus sp	R										
Paracalanus aculeatus	+										
Paracalanus parvus				C	C	C C	C	C			
Pseudocalanus elongatus											
Euchirella rostrata											
Centropages bradyi											
A artia spp					R R						
Oithona nana							R R				
Oithona similis											
Corycaeus sp		R R			R R	R	R R				
Copepoda sp											
Brachyscelus crusculum	+										
Brachyscelus sp											
Daphnia larva											
Mysidae sp											
Hyperia hydrocephala						R					
Evadne spinifera					R						
Evadne tergestina		R R			R R						
Penilia schmackeri											
Podon Schmackeri											
Fritillaria sp											
Pleurobrachia pileus											
Oikopleura dioica											
Oikopleura sp	R					R R					
Sagitta sp					R	R				C	C C
Ceratium breve											
Ceratium furca											
Ceratium fusus										C	C C
Ceratium intermedium											
Ceratium sumatranum											
Codonellopsis morchella			R R								
Dictiocha fibula											
Dinophysis homunculus											
Noctiluca scintillans		C C	C C	R R					C		
Peridinium depressum											
P. oceanicum varoblongum											
Pyrocystis hanula											
Tintinnopsis cylindrica			R R								
Tintinnopsis kofoidi											
Tintinnopsis pavella			R R								
Tintinnopsis sp											
Phyrophacus horologicum											
Balanus larva				R					C C	C C	
Bivalves larva	+			R				R R			
Brachyscelus larva											
Calanus larva											
Copepoda larva	C C	+	R R	C	+	R	+	R			
Echinopluteus larva											
Lingula larva											
Paracalanus larva											
Penaeus larva											
Ophiopluteus larva											
Trypaea larva											
Siphonautes larva											

		August								September			
11	16	1	4	8	11	16	21	24	27	1	4	8	11
30	31	30	30	28	28	27	26	25	23	20	25	24	24
0830	0935	1700	0900	1100	1100	1005	1200	1435	1540	1500	1100	1720	1030
7.3	92.4	37.8	17.0	63.0	25.5	82.6	0.2	4.2	72.9	14.7	65.1	52.9	317.0
60	15	20	20	10	30	20	30	30	50	30	10	10	30
1	3	22	6	42	1	45	11	16	6	14	13	35	0
712	780	1179	2486	2285	1504	717	291	2256	2862	33	869	1670	489

C C

C

C C

Month	September				October						
Station	16	21	24	27	1	4	8	11	16	21	24
Date	23	22	21	21	17	21	21	20	20	19	18
Time	0821	1130	1720	0955	1050	1220	0900	1550	0800	1450	—
Biomass(mg/m^3)	120.6	112.2	299.2	100.5	82.9	59.2	96.4	217.4	129.8	58.3	324.7
Collected depth	20	30	20	—	25	24	15	50	20	55	30
Zooplankton Organisms	2	0	1	18	13	6	1	1	10	7	0
Phytoplankton Organisms	1130	221	1302	1396	2733	3234	140	2407	3247	1419	1149
Zooplankton											
Calanus finmarchicus											
Calanus helgolandicus											
Calanus vulgaris											
Acrocalanus sp											
Paracalanus aculeatus											
Paracalanus parvus											
Pseudocalanus elongatus											
Euchirella rostrata											
Centropages bradyi											
Acartia spp											
Oithona nana											
Oithona similis											
Corycaeus sp					R			+			
Copepoda sp	C	C		+	R	C			C	C	
Brachyscelus crusculum											
Brachyscelus sp											
Daphnia larva											
Mysidae sp	C	C									
Hyperia hydrocephala											
Evadne spinifera											
Evadne tergestina							C	C			
Penilia schmackeri				R		C					
Podon Schmackeri											
Fritillaria sp											
Pleurobrachia pileus									C		
Oikopleura dioica											
Oikopleura sp											
Sagitta sp											
Ceratium breve						C					
Ceratium furca							C	C			
Ceratium fusus											
Ceratium intermedium											
Ceratium sumatranum											
Codonellopsis morchella											
Dictiocha fibula											
Dinophysis homunculus											
Noctiluca scintillans					C	C			+		
Peridinium depressum											
P. oceanicum var oblongum			C	C							
Pyrocystis hanula											
Tintinnopsis cylindrica											
Tintinnopsis kofoidi											
Tintinnopsis pavella											
Tintinnopsis sp											
Phyrophacus horologicum											
Balanus larva											
Bivalves larva											
Brachyscelus larva											
Calanus larva											
Copepoda larva										+	
Echinopluteus larva				C	R			+			
Lingula larva				R							
Paracalanus larva											
Penaeus larva				R							
Ophiopluteus larva											
Trypagea larva											
Siphonautes larva											

	November							
27	1	4	8	11	16	21	24	27
21	10	14	13	13	12	12	11	10
—	0830	1320	1430	1220	1400	0730	0900	1540
126.9	336.2	47.1	86.7	165.5	210.5	312.1	2099.3	245.1
50	20	20	20	30	20	30	30	30
0	4	13	6	10	20	16	14	6
3809	886	827	453	477	751	949	849	1415

Month	February			March	May							
Station	1	4	8	1	1	4	8	11	16	21	24	27
Date	2	2	2	7	6	6	6	7	11	11	14	16
Time	1045	1225	1330	0925	1408	1335	1817	1032	1220	1040	1508	1030
Biomass(mg/m^3)	37.7	361.8	981.3	622.0	116.8	285.4	365.1	506.6	660.5	48.1	6.08	89.9
Collected depth	25	40	35	26	20	20	18	19	20	25	45	50
Zooplankton Organisms	16	55	122	5	32	113	145	30	71	47	40	36
Phytoplankton Organisms	89	57	209	574	89	156	1	418	75	102	14	26
Phytoplankton												
Achnanthes brevipes												
Ach. sp												
Actinoptychus undulatus												
Asterionella japonica												
Asteromphalus Cleveanus												
Ast. hepaticus												
Bacteriastrum varians												
Bacteriastrum hyalinum												
Biddulphia aurita												
Biddulphia longicrusis												
Biddulphia sinensis	R R			R	R R	R					R	
Cerataulina Bergonii					R							
Cerataulina compacta												
Chaetoceros affinis			R R							R R		
Ch. affinis var willei												
Chaetoceros borealis				C C		R R						
Chaetoceros brevis												
Chaetoceros coarctatus												
Chaetoceros compressus												
Chaetoceros constrictus												
Chaetoceros costatus												
Chaetoceros curvisetus				R R								
Chaetoceros dedilis												
Chaetoceros decipiens				R		R R		R R	R	R R	+	
Chaetoceros densus			C	R				C C				
Chaetoceros denticulatum												
Chaetoceros diadema												
Chaetoceros didymus				+								
Ch. didymus var anglica												
Chaetoceros distans												
Chaetoceros hispidum												
Chaetoceros holsaticus												
Chaetoceros lauderi												
Chaetoceros Lorenzianus	R R											
Chaetaceros mitra												
Chaetaceros paradoxum												
Chaetoceros pendulus												
Chaetoceros peruvianus												
Chaetoceros pseudocrinitus						R R						
Ch. pseudocurvisetus												
Chaetoceros seiracanthus												
Chaetoceros setoensis												
Chaetoceros siamense												
Chaetoceros socialis												
Chaetoceros subsecundus												
Chaetoceros teres												
Chaetoceros Van Heurckii												
Chaetoceros Weissflogii						R						
Chaetoceros spp			R R	R R		R R		+	R R	R R		
Cocconeis placentula												
Cocconeis scutellum												
Co. anguste-lineatus						R R						
Coscinodiscus concinnus						R R		R R				
Coscinodiscus excentricus	R R	+	R R		R R							
Coscinodiscus gigas												
Coscinodiscus Granii		R						R R	R			
Coscinodiscus Janischii	R R	C	R	R	R R	C C		R	R		R	
Coscinodiscus marginatus												
Coscinodiscus radiatus	R R	R R						R R		R R	R	

June								July				
1	4	8	11	16	21	24	27	1	4	8	11	16
12	12	12	13	14	16	16	7	29	29	29	30	31
08.00	11.25	45.30	18.10	17.15	11.05	15.45	14.10	09.00	13.30	17.30	08.30	09.35
158.5	232.9	188.6	89.2	147.4	40.0	128.4	64.9	5.0	47.1	18.8	7.3	92.4
25	20	20	30	10	30	20	30	25	20	20	60	15
17	117	273	25	45	21	29	20	3	4	2	1	3
305	241	54	60	348	8	59	45	441	107	155	712	780

R R

R R

R R
R R

R R
R
C R R R R R R R R
R

R R R R R R C C
+

R R

R R R R R R R R
+

R R R R R R R R

R R R R R R R R

R R R R R R R R
R R

R R C C R R R R R C C

R R R R R R
R R

R R R R R R R R
R R

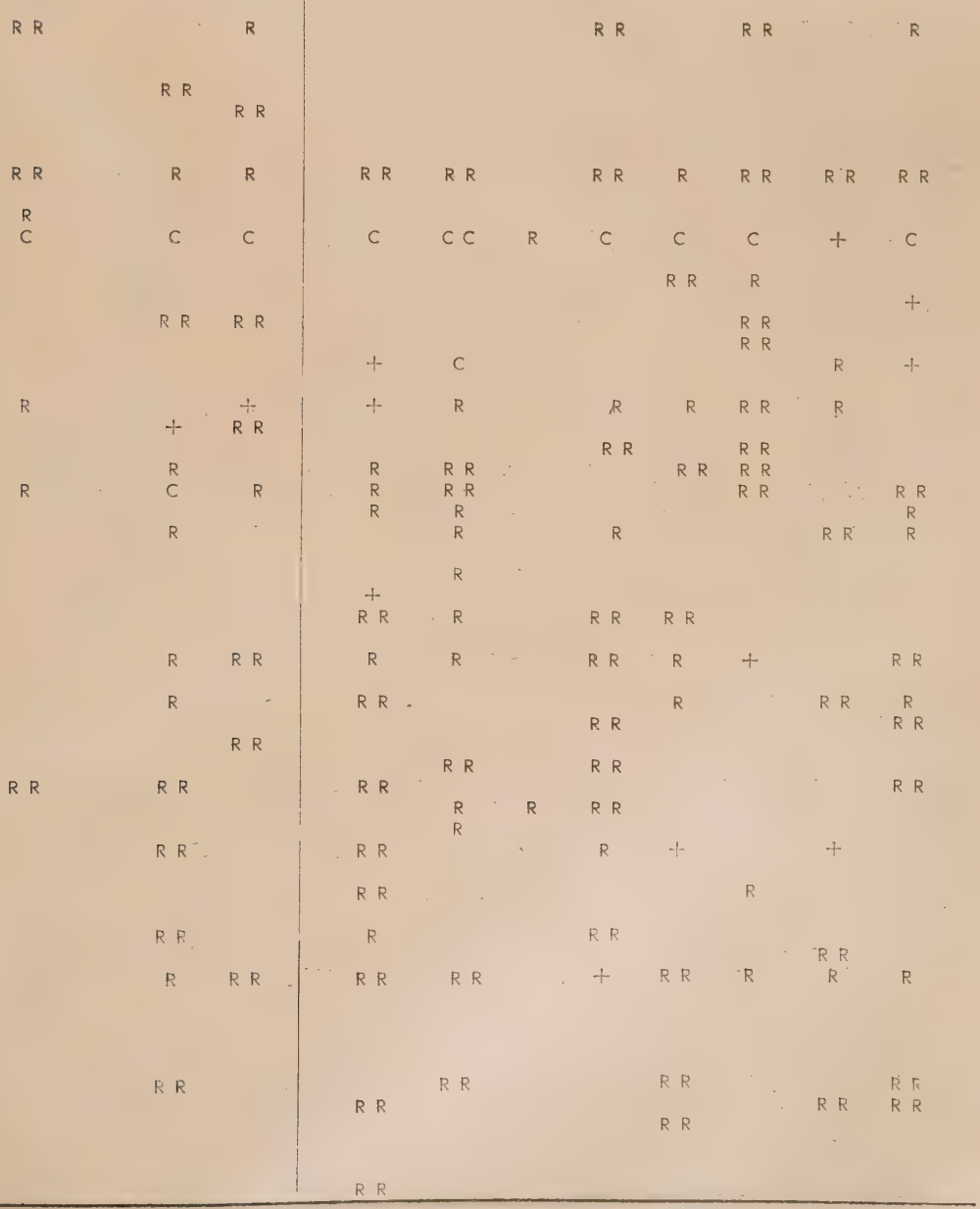
R R R R R R R R
R R

R R R R R R R R
C C + + R R C C C C C C

R R R R

Month	August											
Station	1	4	8	11	16	21	24	27	1	4	8	11
Date	30	30	28	28	27	26	25	23	20	25	24	24
Time	17.00	09.00	11.00	11.00	10.05	12.00	14.35	15.40	15.00	11.00	17.20	10.30
Biomass(mg/m^3)	37.8	17.0	63.0	25.5	82.6	0.2	4.2	72.9	14.7	65.1	52.9	317.0
Collected depth	20	22	10	30	20	30	30	50	30	10	10	30
Zooplankton Organisms	22	6	42	1	45	11	26	6	14	13	35	0
Phytoplankton Organisms	1179	2486	2285	1504	717	291	2256	2862	33	869	1670	439
Phytoplankton												
Achnanthes brevipes												
Ach. sp												
Actinoptychs undulatus												
Asterionella japonica		R R	R R	R R				R R	+	R		
Asteromphalus Cleveanus												
Asteromphalus hepaticus												
Bacteriastrum varians							R	R R			R	
Bacteriastrum hyalinum	R	R R	R R	R R			R R	R				
Biddulphia aurita												
Biddulphia longicrusis										R R		
Biddulphia sinensis	R R	R R	R R	R R	R R		R R				R R	
Cerataulina Bergonii												
Cerataulina compacta					R R		R R	R R				
Chaetoceros affinis	+	C	C	+	R R	R	C C	C		C	C C	+
Ch. affinis var willei												
Chaetoceros borealis												
Chaetoceros brevis												
Chaetoceros coarctatus					R R						R	
Chaetoceros compressus	R											
Chaetoceros constrictus		R										
Chaetoceros costatus				R				R			R R	
Chaetoceros curvisetus	R R	R R	R	R R	R		R			R	C	R
Chaetoceros debilis	R	R R	R	R R	R R		R R					+
Chaetoceros decipiens												
Chaetoceros densus	R R									R		R R
Chaetoceros denticulatum	+	+	R R	C	R	+	+	R		+	R	
Chaetoceros diadema												
Chaetoceros didymus	C C	R	+	C	R R	R	C	C C		R		
Ch. didymus var anglica											R R	
Chaetoceros distans		+	+	R			R	R		R	R R	
Chaetoceros hispidum		+	R	R		R R	R	R		R R	R R	
Chaetoceros holsaticus		R	R									
Chaetoceros landeri												
Chaetoceros Lorenzianus	R	R	R		R R		R R	R R		R	R	
Chaetoceros mitra												
Chaetoceros paradoxum	R	R R	R	R R	+		R R	R R			R	
Chaetoceros pendulu												
Chaetoceros peruvianus												
Chaetoceros pseudocrinitus	R	R R	R		R R			R R		R R		
Ch. pseudocurvisetus							R R	R R				
Chaetoceros seiracanthus	R R		R R	R R			R R	R		R	R	
Chaetoceros setoensis	R R	R R	R		R R		R R	R R		R R		
Chaetoceros siamense		R			R		R				R R	
Chaetoceros socialis												
Chaetoceros subsecundus	R											
Chaetoceros teres							R R					
Chaetoceros Van Heurckii	R R	R R	R	R R	R		R	R				
Chaetoceros Weissflogii	R R	R R	R R	R R						R R	R R	
Chaetoceros spp	R R	R R	R R	R	R		+	R		R R	R R	
Cocconeis placentula												
Cocconeis scutellum				R R				R R				
Co. anguste-lineatus												
Coscinodiscus concinnus												
Coscinodiscus excentricus				R R		R R		R R				
Coscinodiscus gigas			R R		R R			R R		R R		
Coscinodiscus Granii										R R		
Coscinodiscus Janischii												
Coscinodiscus marginatus												
Coscinodiscus radiatus									R R			

September				October							
16	21	24	27	1	4	8	11	16	21	24	27
23	22	21	21	17	21	21	20	20	19	18	18
08.21	11.30	17.20	09.55	10.50	12.20	09.00	15.55	09.20	08.00	14.50	—
120.6	112:2	299.2	100.5	82·9	59.2	96.4	217.4	129.8	58.3	324.7	126.9
20	30	20	—	25	24	15	50	20	55	30	50
2	0	1	18	13	6	1	1	10	7	0	0
1130	221	1302	1396	2733	3234	1400	2407	3247	1419	1149	3809



Month	November							
Station	1	4	8	11	16	21	24	27
Date	10	14	13	13	12	12	11	10
Time	08.30	13.20	14.30	12.20	14.03	07.30	09.00	15.40
Biomass(mg/m³)	336.2	47.1	86.7	165.5	210.5	312.1	2099.3	245.1
Collected depth	20	20	20	30	20	30	30	30
Zooplankton Organisms	4	13	6	10	20	16	14	6
Phytoplankton Organisms	886	827	453	477	751	949	849	1415
Phytoplankton								
Achnanthes brevipes								
Ach. sp		R R						
Actinoptychus undulatus	R R	R R						
Asterionella japonica	R							
Asteromphalus Cleveanus								
Asteromphalus hepaticus								
Bacteriastrum varians								R R
Bacteriastrum hyalinum	R	R R		R R		R R		R R
Biddulphia aurita								
Biddulphia longicrusis								
Biddulphia sinensis	R	R R		R R	R R	R R	R R	R R
Cerataulina Bergonii								
Cerataulina compacta								
Chaetoceros affinis	C	+	R		R	C	R	R R
Ch. affinis var willei							R R	
Chaetoceros borealis	R	R R				R	R	R R
Chaetoceros brevis	R R	R	R R	R		R	R	R R
Chaetoceros coarctatus	R R	R R					R R	R R
Chaetoceros compressus								
Chaetoceros constrictus			R R		R			
Chaetoceros costatus								
Chaetoceros curvisetus				R		R	R R	
Chaetoceros debilis			R R	R				R R
Chaetoceros decipiens	+	R R		R R				
Chaetoceros densus	R	R R				R R	R R	R R
Chaetoceros denticulatum	R R	R R	R R	R	R R	R R	R	R R
Chaetoceros diadema	R R							
Chaetoceros didymus	R R	R R						
Ch. didymus var anglica								
Chaetoceros distans	R R							
Chaetoceros hispidum								
Chaetoceros holsaticus						R		
C aetoceros lauderi			R			R R		
Chaetoceros Lorenzianus	C	R R	R R	C	R	C	+	R
Chaetoceros mitra								
Chaetoceros paradoxum	R R		R				R R	R R
Chaetoceros pendulus								
Chaetoceros peruvianus								
Chaetoceros pseudocrinitus								
Ch. pseudocurvisetus								
Chaetoceros seiracanthus	R		+					R R
Chaetoceros setoensis	R		R					
Chaetoceros siamense	R	R R		+	R	+	R	R R
Chaetoceros socialis								R
Chaetoceros subsecundus							R	
Chaetoceros teres								
Chaetoceros Van Heurckii	R R	R R	R R					
Chaetoceros Weissflogii	R						R	
Chaetoceros spp	R	R	R	R R	R R	R	R	R R
Cocconeis placentula								
Cocconeis scutellum								
Cos. anguste-lineatus								
Coscinodiscus concinnus								
Coscinodiscus excentricus					R R			
Coscinodiscus gigas						R R		
Coscinodiscus Granii								
Coscinodiscus Janischii								
Coscinodiscus marginatus								
Coscinodiscus radiatus								

Month	February			March	May							
Station	1	4	8	1	1	4	8	11	16	21	24	27
Date	2	2	2	7	6	6	6	7	11	11	14	16
Time	1045	1225	1330	0925	1408	1336	1817	1032	1200	1040	1503	1080
Biomass(mg/m^3)	37.7	361.8	981.3	622.0	116.8	285.4	365.1	506.6	960.5	48.1	6.08	89.9
Collected depth	25	40	35	26	20	20	18	19	20	25	45	50
Zooplankton Organisms	16	55	122	5	32	113	142	30	71	47	40	36
Phytoplankton Organisms	89	57	205	574	89	156	1	418	75	102	14	26
Phytoplankton												
Coscinodiscus sp			R	R								
Cyclotella sp			R									
Cymbella sp												
Dacyliosolen antarcticus												
Dac. mediterraneus												
Ditylum Brightwellii												
Ditylum sol												
Eucampia cornuta												
Eucampia zoodiacus		+	R	C	R	R		R		+	C	R R
Fragilaria sp												
Guinardia flaccida												
Hemiaulus sinensis												
Hyalodiscus stelliger	C C	R R	R R							R R		
Lauderia borealis				+								
Leptocylindrus adriaticus												
Leptocylindrus danicus								R		C		
Licmophora abbreviata												
Licmophora flabellata												
Melosira Borreri		R R										
Melosira nummuloides												
Navicula gracilis												
Navicula sp												
Nitzschia closterium												
Nitzschia lanceolata		R R										
Nitzschia longissima												
Nitzschia paradoxa												
Nitzschia seriata						R R				+		C C
Nitzschia sigma												
Pleurosigma affine		R R	R									
Pleurosigma angulatum												
Pleurosigma elongatum												
Pleurosigma fasciola												
Pleurosigma pelagicum												
Pleurosigma sp												
Rhizosolenia alata								R		R R	R	
Rh. alata fo indica												
Rhizosolenia calcar-avis								R R				
Rhizosolenia fragilissima												
Rhizosolenia hebetata								R R				R
Rhizosolenia robusta												
Rhizosolenia setigera												
Rhizosolenia Stolterfothii			R					R R	R R	R R	+	
Rhizosolenia styliformis												+
Schrodella delicatula												
Skeletonema costatum					C C					R R		
Stephanopyxis Campana												
Stephanopyxis palmeriana				+	R R					C C		
Stephanopyxis turris												
Streptotheca thamesis												
Synedra affinis var arcuat												
Synedra sp												
Tabellaria fenestrata												
Thalassionema nitzschioides						R R		R R				
Thalassiosira condensata												
Thalassiosira rotula												
Thalassiosira subtilis			+									
Thalassiothrix Frauenfeldii	R R											
Thalassiothrix longissima												
Trichodesmium sp												

Month	June								July		
Station	1	4	8	11	16	21	24	27	1	4	8
Date	12	12	12	13	14	16	16	7	29	29	29
Time	0800	1125	1630	1810	1715	1105	1545	1410	0900	1330	1730
Biomass(mg/m³)	158.5	232.8	183.6	89.2	147.4	40.0	128.4	64.9	5.0	47.1	18.8
Collected depth	25	20	20	30	10	30	20	30	25	20	20
Zooplankton Organisms	17	117	273	25	45	21	29	20	3	4	2
Phytoplankton Organisms	305	241	54	60	348	8	59	45	441	107	155
Phytoplankton											
Coscinodiscus sp	+	+	R	R	R	R		R	R		
Cyclotella sp											
Cymbella sp											
Dactyliosolen antarcticus											
Dactyliosolen mediterraneus											
Ditylum Brightwellii											
Ditylum sol											
Eucampia cornuta											
Eucampia zoodiacus										R	R
Fragilaria sp											
Guinardia flaccida											
Hemianlus sinensis											
Hyalodiseus stelliger											
Lauderia borealis											
Leptocylindrus adriaticus											
Leptocylindrus danicus				R							
Licmophora abbreviata								R	R		
Licmophora flabellata											
Melosira Borreri											
Melosira nummuleides			C								
Navicula gracilis											
Navicula sp											
Nitzschia closterium											
Nitzschia lanceolata											
Nitzschia longissima											
Nitzschia paradoxa											
Nitzschia seriata	R	R							R	R	R	R	R
Nitzsehia sigma											
Pleu osigma affine											
Pleurosigma angulatum											
Pleurosigma elongatum											
Pleurosigma fasciola						+					
Pleurosigma pelagicum											
Pleurosigma sp											
Rhizosolenia alata fo indica			R	R	R	R		R	R	R	R		
Rhizosolenia calcar-avis											
Rhizosolenia fragilissima											
Rhizosolenia hebetata	R	R									R	R
Rhizosolenia robusta											
Rhizosolenia setigera	R	R									
Rhizosolenia Stolterfothii											
Rhizosolenia styliformis									R	R	R	R	R
Schrodella delicatula											
Skeletonema costatum	+		+						C	C	+	C	C
Stephanopyxis Campana											
Stephanopyxis palmeriana	+	+									
Stephanopyxis turris	R	R							R	R		
Stephtotheca thamesis											
Synedra affinis var arcuat											
Synedra sp											
Tabellaria fenestrata											
Thalassionema nitzschioides	R	R		R	R						R	R	R
Thalassiosira condensata											
Thalassiosira rotula			R	R							
Thalassiosira subtilis											
Thalassiothrix Frauenfeldii	R	R									
Thalassiothrix longissima				R	R						
Trichodesmium sp											

		August								September			
11	16	1	4	8	11	16	21	24	27	1	4	8	11
30	31	30	30	28	28	29	26	25	23	20	25	24	24
0830	0935	1700	0900	1100	1100	1005	1200	1435	1540	1500	1100	1720	1030
7.3	92.4	37.8	17.0	63.0	25.5	82.6	0.2	4.2	72.9	14.7	65.1	52.9	317.0
60	15	20	20	10	30	20	30	30	50	30	10	10	30
1	3	22	6	42	1	45	11	16	6	14	13	35	0
712	780	1179	2486	2285	1504	717	291	2256	2862	33	869	1670	489
								R R					
		R R											
	R R								R R				
						R R		R R				R R	
												R R	
												R R	
									R R				
			R R		R R				R R				
		R R				R R							
													R R
	R R				R R				R R				
R	R	R R	R	R R	R R	R R	R R	R R	R R	C C	C	R	C C
								R R	R R				
				R R									
		R R										R R	R R
	R R		R R	R R	R R				R R		R R	R R	
R R				R R				R R	R R				
						R R			R R			R R	
R R	R	R R	R R	R R	R R	R R	R R	R R	R R		R R	R R	R
				R R									
R		R	R	R R	+	R R		R	+	+	R	C	+
	—				R R			R R				R R	
	R R												
					R R		R R		R R	R R	R R	R R	
R	+	R R	R R	R R	R R		R R	R R	R R	R R	R R	R R	R R
							R R						R
R R	R R	R	R R	R R	+	C C	+	+	R	+	R	R R	R
					R R		C C	R R	R R				

Month	September				October						
Station	16	21	24	27	1	4	8	11	16	21	24
Date	23	22	21	21	17	21	21	20	20	19	18
Time	0820	1130	1720	0955	1050	1220	0900	1555	0920	0800	1450
Biomass(mg/m³)	120.6	112.2	299.2	100.5	82.9	59.2	96.4	217.4	129.8	58.3	324.7
Collected depth	20	30	20	—	25	24	15	50	20	55	30
Zooplankton Organisms	2	0	1	18	13	6	1	1	10	7	0
Phytoplankton Organisms	1130	221	1302	1396	2733	3234	140	2407	3247	1419	1149
Phytoplankton											
Coscinodiscus sp											
Cyclotella sp											
Cymbella sp						R R					
Dactyliosolen antarcticus											
Dactyliosolen mediterraneus											
Ditylum Brightwellii					R R			R R	R R		
Ditylum sol											
Eucampia cornuta											
Eucampia zoodiacus											
Fragilaria sp						R R					
Guinardia flaccida			R R					R R	R R		
Hemianlus sinensis				R R				R R			
Hyalodiseus stelliger											
Lauderia borealis			R R	R R	R R	R R		R R	R R		
Leptocylindrus adriaticus									R R		
Leptocylindrus danicus								R R	R R		
Licmophora abbreviata											
Licmophora flabellata			R R								
Melosira borreri											
Melosira nummuloides											
Navicula graci is											
Navicula sp											
Nitzschia closterium											
Nitzschia lanceolata											
Nitzschia longissima								R R			
Nitzschia paradoxa			R R		R R			R R	R R		
Nitzschia seriata	C C	R	+	+	C C	C C	C C	C C	R R	+	C C
Nitzschia sigma											
Pleurosigma affine						R R					
Pleurosigma angulatum											
Pleurosigma elongatum						R R					
Pleurosigma fasciola											
Pleurosigma pelagicum											
Pleurosigma sp				R R		R R			R R	R R	
Rhizosolenia alata			R R		R R	R R				R R	
Rh. alata fo indica							R R				
Rhizosolenia calcar-avis										R R	
Rhizosolenia fragilissima											
Rhizosolenia hebetata									R R		
Rhizosolenia robusta											R R
Rhizosolenia setigera											
Rhizosolenia Stolterfothii											
Rhizosolenia styliformis	R R	R R	R R	R R	R R	R R	R R	R R	R R	R R	R R
Schrodella delicatula											
Skeletonema costatnm	C	C C	C C	C	R R	C	R	+	C	+	+
Stephanopyxis Campana									R R	R R	
Stephanopyxis palmeriana	R R		R R	R R	R R	R R				R R	
Stephanopyxis turris											
Streptotheca thamesis									R R		
Synedra affinis var arcuat						R R		R R			
Synedra sp		R R	R R			R R					
Tabellaria fenestrata											
Thalassionema nitzschioides	R R	R R	R R	R R	R R	R R	R R	R R	R R	R R	R R
Thalassiosira condensata											
Thalassiosira rotula		R R									
Thalassiosira subtilis											
Thalassiothrix Frauenfeldii	R R	R R	R R	+	R	R R		R R	C C	C	R R
Thalassiothrix longissima								R R			
Trichodesmium sp											

	November							
27	1	4	8	11	16	21	24	27
18	10	14	13	13	12	12	11	10
—	0830	1320	1430	1120	1400	0730	0900	1540
126.9	33.62	47.1	86.7	165.5	210.5	312.1	2099.3	245.1
50	20	20	20	30	20	30	30	30
0	4	13	6	10	20	16	14	6
3809	886	827	453	477	751	949	849	1415

西紀1964年12月20日　印刷
西紀1964年12月25日　發行

編輯兼
發行者　國立水產振興院

釜山市東區草梁洞1043番地
印刷所　新興印刷社
TEL ② 4385

海洋調査年報 正誤表

Volume 11 (1962)

Errata

頁 Page	行 Line	列 Column	誤 Error	正 Correct
40	16	9	33.33	33.46
40	16	10	34.13	33.33
59	31	10	Ct.4	Ci.4
83	5	4	21.10	11.20
87	30	10	W.2	—
88	18	8	33.08	—
88	19	8	34.48	—
91	14	1	10.86	—
126	30	1	Pseudocalanus aculeatus	Paracalanus aculeatus
128	27	1	Pscudcoalanus aculeatus	Paracalanus aculeatus
146	18	1	Calocalanuspavo	Calocalanus pavo
171	32	5	C	—
171	32	8	Cu.8	—